

# The Mining Journal.

## RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

[The MINING JOURNAL is Registered at the General Post Office as a Newspaper, and for Transmission Abroad.]

No. 2586.—VOL. LV.

LONDON, SATURDAY, MARCH 14, 1885.

WITH SUPPLEMENT. PRICE SIXPENCE BY POST, £1 4s. PER ANNUM

**MR. JAMES H. CROFTS, STOCK AND SHARE BROKER AND MINING SHARE DEALER.**  
No. 1, FINCH LANE, CORNHILL, LONDON, E.C.  
ESTABLISHED 1842.

BUSINESS transacted in all descriptions of MINING STOCKS and SHARES (British and Foreign), Consols, Bonds (Foreign and Colonial), Railways, Insurance, Assurance, Telegraph, Tramway, Shipping, Canal, Gas, Water, and Dock Shares, and all Miscellaneous Shares.

BUSINESS negotiated in STOCKS and SHARES not having a general market value.

Every week a GENERAL and RELIABLE LIST issued (a copy of which will be forwarded on application), containing closing prices.

BANKERS: CITY BANK, LONDON—SOUTH CORNWALL BANK, St. Austell.

TELEPHONE NUMBER 1003.

SPECIAL DEALINGS in the following (or part):—

60 Asia Minor, 3s. 6d.	100 Guinea Coast Gold, 12s. 6d.	50 Potosi (New), 12s. 6d.
70 Alankoo, f.p.d., 6s.	100 Hoover Hill, 5s. 6d.	100 Port Phillip, 2s. 3d.
80 Almaden, 2s. 6d.	100 Home Mines Trust, 14s.	150 Parys Copper, 9d.
90 Balfour United, 23s.	100 Home Mines Trust, 14s.	30 Phoenix United, 25s.
100 Balfour, 3s. 3d.	100 Indian Consol., 2s. 9d.	25 Panulillo, £2.
110 Bratsberg, 15s.	100 Javali, 2s. 6d.	50 Prince of Wales, 4s.
120 Cankim Bamboo, 1s.	200 Kapanga, 6d.	100 Pestana, 1s.
130 Carn Camborne, 5s.	20 Killifreth, 11s. 6d.	100 Rio Tinto, £1 1s. 3d.
140 Callao Bis, 11s. 6d.	50 Kim No. Block, 23s. 9d.	100 Ruby (New), 2s. 9d.
150 Cartago, f.p.d., 6s. 3d.	100 Kohinoor B, 5s. 6d.	15 Richmond, £3 6s. 3d.
160 ditto, 15s. paid, 5s.	100 La Plata, 4s. 3d.	10 Roman Grav., £3 5s.
170 Colom. Hyd., 2s. 6d.	25 La Trinidad, £5 2s. 6d.	20 Schwab's Gully, 24s.
180 Consolidated, 2s.	50 Leadhills, 23s.	100 Spitzkop, 8s. 6d.
190 California, 5s. 6d.	100 Lisbon-Berlyn, 6s.	50 South Caradon, 7s.
200 Colorado, £2 1s. 3d.	25 Marke Valley, 9s.	5 So. Condurow, £2 1/2.
210 Canada Copper, 3s. 6d.	25 Mason & Barry, 8 2s. 6d.	20 South Darren, 5s. 6d.
220 Chontales, 2s. 6d.	100 Montana, 30s.	50 South Penstruthal, 1s. 3d.
230 Cor. South Australian Copper, 2s. 3d.	100 Mounts Hay, 2s. 3d.	100 Tacuahu, 1s. 3d.
240 Costacovill, 1s. 3d.	50 Myore Gold, 30s.	100 Tamboracherry, 5s. 6d.
250 Devala Moyer, 3s. 3d.	100 New Chile, 16s. paid, 7s.	20 Tolima A, £3 7s. 6d.
260 Devon Consol., £1 12s.	100 Nacupal, 2s. 6d.	20 ditto B, £2 2s. 6d.
270 Devon Friend, 1s. 9d.	50 New Caradon, 2s. 6d.	100 Transvaal Gold, 4s. 6d.
280 Dolcoath, £2 1/2.	100 New Callao, 4s. 9d.	100 Tregontrees, 2s. 9d.
290 Don Pedro, 3s. 3d.	100 New Emma, 6s. 6d.	100 Trevaunance, 4s. 6d.
300 Drakewalls, 5s. 3d.	50 New Kitty, 20s. c. p.	50 Utd. Mexican, £3 7s. 6d.
310 Duchy Peru, 10s.	150 Nouveau Monde, 2s. 3d.	50 Van, 11s. 6d.
320 E. Blue Hills, 6s. 3d.	100 New W. Caradon, 1s. 6d.	100 Victoria Gold, 9s. 6d.
330 Eberhardt, 2s. 3d.	100 Nundydroog, 8s.	50 Wheel Agar, £19 1/2.
340 East Lovell, 2s.	100 Nine Reefs, 3s. 6d.	100 Wh. Bassot, £5 7s. 6d.
350 East Wh. Rose, 5s. 6d.	100 Old Shepherds, 5s. 6d.	50 West Phoenix, 1s. 3d.
360 Ecton, £1 4s.	100 Oregum, 2s. 9d.	50 West Caradon, 1s. 6d.
370 El Callao, £5 7/2.	100 Organos, 8s. 3d.	100 West Crebor, 1s.
380 Frontino, 3s.	50 Orita, 5s. 6d.	50 West Polbreon, 10s.
390 Goginan, 1s. 6d.	100 Oscar, 17s. 6d. paid, 8s. 6d.	10 West Kitty, £2 10s.
400 Gold Coast, 2s.	50 Oscar Vendors', 20s. paid, 9s.	50 Wheel Coates, 2s. 6d.
410 Glenrock, 2s. 3d.	25 Polbreon, 10s.	50 Wheel Crebor, 20s.
420 Great Holway, 2s.		20 Wheel Kitty, 15s.
430 Great Laxey, £9.		100 Wynad Perseu, 1s. 3d.

\* BUSINESS at CLOSE PRICES in all marketable TIN, COPPER, LEAD, GOLD, SILVER, and DIAMOND SHARES.

\* SHARES SOLD FOR THE USUAL FORTNIGHTLY SETTLEMENT.

\* SHARES SOLD FOR FORWARD DELIVERY (ONE, TWO, or THREE MONTHS) ON DEPOSIT OF TWENTY PER CENT.

JAMES H. CROFTS, 1, FINCH LANE, LONDON.

**HOME RAILWAYS—SPECIAL BUSINESS.**—Fortnightly accounts opened on receipt of the usual cover.  
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

**AMERICAN, CANADIAN, AND FOREIGN RAILS—SPECIAL BUSINESS.** Fortnightly accounts opened on receipt of the usual cover.  
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

**BANK, OMNIBUS, TRAMWAY, GAS, WATER, and CANAL SHARES.** BUSINESS in all the above, and fortnightly accounts opened.  
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

**MISCELLANEOUS SHARES of all DESCRIPTIONS BOUGHT or SOLD.** SPECIAL BUSINESS in:—  
HOTEL. IRON and COAL.  
ELECTRIC LIGHT.  
And other COMMERCIAL or INDUSTRIAL SHARES.

\* Special Business in Bryant and May (Limited).

SHARES SOLD FOR FORWARD DELIVERY (ONE, TWO, or THREE MONTHS) ON DEPOSIT OF TWENTY PER CENT.

JAMES H. CROFTS, 1, FINCH LANE, LONDON.

**OPTIONS in all STOCKS and SHARES dealt in.**—  
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

**DIAMOND SHARES OF SOUTH AFRICA.**—  
ADAMANT DIAMOND. FRENCH and D'ESTERRE.  
ANGLO AFRICAN. DIAMOND.  
BRITISH DIAMOND. KIMBERLEY CENTRAL.  
DE BEERS. KIMBERLEY NORTH BLOCK.  
FRENCH DIAMOND. PHOENIX DIAMOND.  
SCHWAB'S GULLY.

BUSINESS in the ABOVE at CLOSE MARKET PRICES for USUAL FORTNIGHTLY SETTLEMENT.

SHARES SOLD FOR FORWARD DELIVERY (ONE, TWO, or THREE MONTHS) ON DEPOSIT OF TWENTY PER CENT.

JAMES H. CROFTS, 1, FINCH LANE, LONDON.

**SCHWAB'S GULLY DIAMOND SHARES.**—  
The usual quarterly dividend has just been paid at the rate of 20 per cent. per annum. This company in about three years has paid back to the shareholders in the shape of dividends about 75 per cent. of the entire capital. The shares are £10 each, fully paid, and at current price yield about 40 per cent.

JAMES H. CROFTS, 1, FINCH LANE, LONDON.

**TRANSVAAL GOLD SHARES—SPECIAL BUSINESS IN:—**  
BALKIS. LISBON-BERLYN.  
GRASKOPS. SPITZKOP.

Shares in the above Companies sold for the usual Fortnightly Settlement, or for forward delivery (one, two, or three months) on deposit of twenty per cent.

JAMES H. CROFTS, 1, FINCH LANE, LONDON.

**EL CALLAO MINE (Venezuela),** paying regular MONTHLY DIVIDENDS, and at present market quotations yielding about 18 per cent. per annum. SPECIAL BUSINESS in these Shares.

JAMES H. CROFTS, 1, FINCH LANE, LONDON.

**GOLD AND SILVER MINES.—INDIAN, NORTH AMERICAN, SOUTH AMERICAN, WEST AFRICAN, SOUTH AFRICAN, and MEXICAN Mining Shares.**

BUSINESS as BUYER or SELLER in all the above.

Shares Sold for Fortnightly Account.

Shares Sold for Forward Delivery (one, two, or three months) on deposit of twenty per cent.

JAMES H. CROFTS, STOCK AND SHARE BROKER, AND MINING SHARE DEALER, No. 1, FINCH LANE, LONDON, E.C.

ESTABLISHED 1842.

LONDON BANKERS—THE CITY BANK.

**BRITISH AND FOREIGN MINING OFFICES.**

MESSRS. PETER WATSON AND CO.,  
18, AUSTIN FRIARS,  
OLD BROAD STREET, LONDON, E.C.

BANKERS: THE ALLIANCE BANK (Limited).

**MESSRS. PETER WATSON AND CO.'S**  
BRITISH AND FOREIGN MONTHLY MINING NEWS—STOCK AND SHARE INVESTMENT NOTES—MINES, MINERALS, AND METAL MARKETS—SHARE LIST, No. 874, Vol. XVII, for MARCH month, will shortly be ready, and will be sent to customers on application.

Annual Subscription..... 5s. | Single Copy..... 6d.

**MR. ALFRED E. COOKE, STOCK AND SHARE DEALER,**  
9, OLD BROAD STREET, LONDON,  
ESTABLISHED 1853.

TELEPHONE No. 1268.

Mr. ALFRED E. COOKE can SELL the following shares, or any smaller marketable number at prices affixed FREE OF COMMISSION:—

50 Almaden, 2s. 9d. 30 Home Mines Tst., 13s. 6d. | 35 Oscar, 17s. 6d. paid, 8s. || 140 Balkis, 3s. 3d. | 50 Indian Consol., 2s. 9d. | 40 Oscar, fully pd., 10s. |
30 Bratsberg, 14s. 6d.	50 Kohinoor B, 5s. 3d.	50 Potosi, 12s.
30 Callao Bis, 13s. 9d.	40 La Plata (New), 4s. 3d.	75 Prince of Wales, 4s.
100 Chile Gold, 7s. 6d.	15 Leadhills, 23s.	25 Schwab's Gully, 24s.
50 Colombian Hyd., 9s. 6d.	100 Lisbon-Berlyn, 6s.	40 South Kitty, 10s.
30 California Gold, 5s. 3d.	20 Mounts Bay, 2s. 3d.	5 Tolima A, £3 7/2.
10 Colorado, £2 1/2.	50 Mysore Gold, 30s.	30 Transvaal Gold, 4s. 6d.
100 Denver, 2s.	50 New Callao, 4s. 9d.	50 Trevaunance, 4s. 6d.
40 Devon Friend, 1s. 9d.	10 New Kitty, 20s.	10 United Mexican, £3 7/2.
100 Don Pedro, 3s. 3d.	100 Nouveau Monde, 2s. 6d.	50 Victoria Gold, 10s.
5: East Blue Hills, 10s.	100 New West Caradon, 1s. 6d.	50 Van, 11s. 6d.
50 East Wheel Rose, 5s.	60 Nundydroog, 7s. 6d.	40 West Callao, 2s. 9d.
20 Ecton, 25s.	60 Old Shepherds, 5s. 6d.	5 West Kitty, £2 1/2.
2 El Callao, £5 7/2.	20 Organos, 8s. 3d.	20 Wheel Crebor, 15s.
50 Hoover Hill, 5s. 3d.	30 Orita, 19s.	

MANY of the ABOVE SHARES can be supplied for END of APRIL or MAY account on cash DEPOSIT of TEN PER CENT.

LARGE PROFITS.—Apply for List issued by ALFRED E. COOKE.

**OSCAR GOLD—SPECIAL BUSINESS.**  
ALFRED E. COOKE.

**NORTH MEXICAN Shares cum DEBENTURES** should be purchased. SPECIAL BUSINESS.

**DAILY and WEEKLY LISTS of PRICES** issued to clients on application.

ADVANCES MADE ON STOCKS AND SHARES.

Letters and Telegrams receive immediate personal attention.

ALFRED E. COOKE, 9, OLD BROAD STREET, LONDON.

ESTABLISHED 1852.

BANKERS: ROYAL EXCHANGE (Limited), London.

**MR. JAMES STOCKER, STOCK BROKER,**  
2, CROWN COURT, THREADNEEDLE STREET, LONDON, E.C.

Has Special Business in the following for cash or settlement by arrangement free of commission:—

70 Almaden, 2s. 9d. 50 Eberhardt, 2s. 6d. | 60 Nundydroog, 7s. 9d. || 70 Alankoo, 5s. 3d. | 100 Ecton, 23s. 3d. | 70 Old Shepherds, 5s. 6d. |
100 Balkis, 3s. 3d.	55 Frontino, 7s. 6d.	80 Orita, 19s.
40 Bratsberg, 14s.	90 Glenrock, 2s. 3d.	45 Organos, 8s. 6d.
60 Birdseye, 23s. 9d.	40 Great Holway, 11s.	35 Oscar Gold, 8s.
60 Cartago, 7s. 9d.	60 Home Mines, 13s. 9d.	70 Port Phillip, 2s. 3d.
100 Californian, 5s.	100 Ind. Consol., 2s. 9d.	40 Panulillo, £2 3s.
80 Callao Bis, 11s. 6d.	30 Kapanga, 6d.	60 Potosi (New), 11s. 6d.
45 Carn Camborne, 5s.	50 Kohinoor B, 5s. 3d.	30 Richmond, £3 9s. 9d.
75 Chile Gold, 6s. 9d.	50 La Plata, 4s.	70 Ruby, 3s. 6d.
100 Chontales, 2s. 6d.	30 Lisbon-Berlyn, 5s. 6d.	20 Schwab's Gully, £4 13d.
50 Colombian, 9s. 6d.	30 La Trinidad, £5 2s. 6d.	80 Transvaal Gold, 4s. 3d.
25 Colorado, £2 2s.	40 Montana, 30s.	2 Tolima A, £3 7s. 6d.
70 Devala, 3s. 3d.	50 Mysore Gold, 31s.	30 Trevaunance, 41s.
100 Denver, 2s. 3d.	65 New Callao, 4s. 9d.	25 Utd. Mexican, £3 7s. 6d.
50 Drakewalls, 5s.	100 Nacupal, 2s. 6d.	50 Victoria Gold, 9s. 6d.
30 East Blue Hills, 6s. 6d.	75 Nouveau Monde, 2s. 3d.	60 West Callao, 2s. 9d.

The following SHARES WANTED FOR CASH:—

50 Mysore, 300 Chile, 100 Kohinoor B.

50 New Potosi, 50 Birdseye, 70 Frontino.

Railways, Foreign Bonds, Gold and Silver Mines, Miscellaneous Shares, and all Stock Exchange Securities.

ESTABLISHED 1851.

BANKERS: LONDON AND WESTMINSTER.

**CHARLES J. SIMS, STOCK AND SHARE DEALER,**  
3, UNION COURT, OLD BROAD STREET, LONDON, E.C.

**MESSRS. ENDEAN AND CO., STOCK AND SHARE DEALERS,**  
85, GRACECHURCH STREET, LONDON, E.C.

ESTABLISHED 1862.

BANKERS: LONDON AND WESTMINSTER, Lothbury, E.C.

**MR. W. B. COBB, 29, BISHOPSGATE STREET WITHIN, LONDON.**

Special information and business in all mines in the United States of Colombia—Tolima, Western Andes, Colombian, and other gold and silver mines in that country.

**MR. W. TREGELLAS, 40, BISHOPSGATE STREET WITHIN, E.C.**

Deals in all descriptions of STOCKS and SHARES at close market prices.

W. TREGELLAS has special business in SANTA BARBARA and LISBON-BERLYN GOLD MINES.

**BEAZLEY AND CO., STOCK AND SHARE DEALERS,**  
6 AND 7, COLEMAN STREET, LONDON, E.C.

ESTABLISHED 28 YEARS.

Messrs. BEAZLEY AND Co. have business in the following Shares at the prices quoted below.

SELLERS and BUYERS should send FIRM ORDERS at once.

Buyers.	Sellers.	Buyers.	Sellers.
*Almaden.....£ 0 2 0	£ 0 2 6	Mysore.....£ 1 9 0	£ 1 11 0
*Bratsberg.....0 12 6	0 14 3	Montana.....1 7 0	1 9 6
*Balkis.....0 2 9	0 3 3	Nundydroog.....0 6 0	0 7 6
*Callao Bis.....0 10 0	0 12 0	*Nou. Monde.....0 2 0	0 2 6
*California.....0 4 6	0 5 3	*Nacupal.....—	—
*Colombian.....0 8 6	0 9 6	*New Potosi.....0 10 0	0 12 0
*Colorado.....1 7s.	2 1/2s.	*New Chile.....0 6 0	0 7 6
*Cartago f.p.....0 5 0	0 6 3	*New Callao.....0 4 0	0 5 0
*Denver.....0 1 9	0 2 0	*Oscar, f.p.d.....0 8 0	0 10 0
*Drakewalls.....0 4 0	0 6 0	*Oscar Gold.....0 7 0	0 8 0
*E. Wh. Rose.....0 4 0	0 5 0	*Oregum.....0 2 0	0 3 0
*Eberhardt.....0 2 0	0 2 9	*Orita.....0 17 6	0 19 6
*Ecton.....1 0 0	1 5 0	*Organos.....0 8 0	0 10 0
*E. Blue Hill.....0 5 0	0 7 0	*Ruby.....0 3 0	0 5 0
*Frontino.....0 7 0	0 8 0	*Schwab's G. G.....4 10 0	4 15 0
*H. M. Trust.....0 12 6	0 13 6	*Transvaal.....0 3 6	0 4 6
*Hoover Hill.....0 4 6	0 5 6	*U. Mexican.....3 2 6	3 5 0
*Ind. Consol.....0 2 6	0 3 0	*Victoria.....—	—
*Kohinoor B.....0 4 6	0 5 6	*West Callao.....0 8 0	0 9 0
*Lis. Berlyn.....0 5 0	0 6 0	*West Kitty.....9 0 0	9 10 0
*La Plata.....0 3 6	0 4 6	*W. Crebor.....0 17 0	0 19 0

SHARES MARKED THUS \* SPECIALLY RECOMMENDED FOR A RISE.

**CASH PURCHASES.—SPECIAL FACILITIES for IMMEDIATE SETTLEMENT and DELIVERY of SHARES.**

Shares supplied for FORWARD DELIVERY on BEST POSSIBLE TERMS.

BEAZLEY AND CO., 6 AND 7, COLEMAN STREET, LONDON, E.C.

**MR. WILLIAM H. BUMPUS, STOCK BROKER AND MINING SHARE DEALER.**  
44, THREADNEEDLE STREET, LONDON, E.C.  
[Established at this Address in 1867.]

BUSINESS transacted in ALL STOCK EXCHANGE SECURITIES, MINING and MISCELLANEOUS SHARES of every description. An INVESTMENT LIST free on application.

**SPECIAL BUSINESS in the undermentioned:—**

150 Almaden, 2s. 6d. 100 Home Mines Trust, 14s. | 50 Oscar, 9s. 6d. || 70 Bratsberg, 13s. 9d. | 14s. 9d. | 40 Orita, 19s. |
250 Balkis, 3s. 6d.	150 Hoover Hill, 5s. 6d.	50 Organos, 9s. 3d.
100 Callao Bis, 11s. 3d.	150 Indian Consol., 2s. 9d.	15 Panulillo, £2 15s.
120 Californian, 5s. 9d.	200 Javali, 3s.	25 Polbreon, 10s.
30 Colorado, 2s. 2s. 6d.	100 Kohinoor B, 5s.	100 Plumas Eureka, 19s. 6d.
100 Colombian, 11s.	25 Killifreth, 12s. 6d.	20 Quebrada, £2 1/2.
100 Chontales, 2s. 9d.	20 Leadhills, 23s. 6d.	20 Richmond, £3 1/2.
75 Cartago, 7s. 9d.	150 La Plata (New), 4s. 3d.	100 Ruby, 4s.
150 Denver, 2s. 9d.	100 Lisbon-Berlyn, 6s.	15 South Condurow, 7s.
20 Devon Consol., 32s. 9d.	50 Mysore Gold, 32s.	70 South Caradon, 8s. 9d.
100 Devala Moyer, 3s. 9d.	100 Mounts Bay, 2s. 6d.	41 Trevaunance, 46s.
2 Dolcoath, 2s.	100 Montana, 30s.	150 Transvaal, 41s.
50 Don Pedro, 3s. 6d.	40 Marke Valley, 6s. 6d.	100 Victoria Gold, 11s. 6d.
50 Drakewalls, 5s.	75 Nundydroog, 8s. 6d.	15 Wh. Grenville, £2 1/2.
150 Eberhardt, 2s.	200 Nacupal, 2s. 6d.	50 West Godolphin, 18s.
50 East Blue Hills, 6s. 9d.	100 Nine Reefs, 3s. 6d.	8 Wheel Agar, 10s.
100 Frontino, 7s. 9d.	100 New Potosi, 12s. 3d.	10 West Kitty, £2 1/2.
10 Great Laxey, £2 1/2.	150 New Chile, 7s.	50 West Polbreon, 10s.
200 Glenrock, 2s. 6d.	75 New Emma, 6s.	100 Wheel Crebor, 19s. 6d.
	200 Nouveau Monde, 2s. 6d.	

Where prices are not inserted offers may be made.

\* The present is a most favourable opportunity for investing in SOUND MINING SECURITIES, a judicious purchase of which at the low prices now ruling will, in all probability, result in large profits within the next few months.

Mr. BUMPUS devotes SPECIAL ATTENTION to LEGITIMATE MINES, and is in a position to afford reliable information and advice to intending investors and others in the selection of Shares either for INVESTMENT or SPECULATION. Correspondence invited.

ESTABLISHED 1867.

**MR. CHARLES THOMAS, MINING AGENT AND ENGINEER,**  
3, GREAT ST. HELEN'S, LONDON, E.C.

**MR. ALFRED THOMAS, MINING ENGINEER, AND STOCK AND SHARE DEALER,**  
10, COLEMAN STREET, LONDON, E.C.

ESTABLISHED 1852.

**MR. HENRY J. TALLENTIRE, STOCK BROKER AND MINING SHARE DEALER.**

SPECIAL DEALINGS in BALKIS, LISBON-BERLYN, MYSORE, TRANSVAAL and INDIAN Mines.

SHARES CAN BE SECURED for payment in one, two, or three months upon deposit of 20 per cent.

OFFICES—21, THREADNEEDLE STREET, LONDON, E.C.

BANKERS: CITY BANK, Threadneedle-street, E.C.

**MR. J. GRANT MACLEAN, SHAREBROKER AND IRONBROKER, STIRLING, N.B.**

Refers to his Share Market Report on page 297 of to-day's Journal.

**MESSRS.**



HADFIELD'S STEEL FOUNDRY COMPANY, HECLA WORKS, ATTERCLIFFE, SHEFFIELD.

HADFIELD'S CAST STEEL WHEELS, ROLLERS, PULLEYS, PEDESTALS, AND AXLES.



# HADFIELD'S STEEL FOUNDRY CO

ATTERCLIFFE SHEFFIELD.

OUR SOLE SPECIALITY IS

**STEEL CASTINGS**

FROM 4 IN. TO 16,000 LBS. EACH

**SOUND**

**DURABLE**

**TOUGH**

CONTRACTORS TO

**H.M. HOME**

**INDIA & COLONIAL**

**GOVERNMENTS**



THE WHEEL SHOWN ON ABOVE SKETCH HAS BEEN TESTED WITH AN ENORMOUS WEIGHT TO A CERTAIN DEGREE OF ELONGATION, AND THAT IT IS AS STRENGTHY AS THE BEST CAST STEEL.

HOME FOREIGN

**AND**

**COLONIAL RAILWAYS**

**ADMIRALTY-WAR**

**DEPARTMENTS**

**GOLD MEDAL 1881 MELBOURNE**

**GOLD MEDAL 1883 MADRID**

**CORNWALL 1883 JEES FIRST PRIZE MEDALS AND HIGHEST AWARDS WRECHAM MANCHESTER**

**SOLE MAKERS OF**

**HADFIELD'S CAST STEEL WHEELS.**

ROLLERS, PULLEYS, PEDESTALS, AXLES, &c.,

FOR COLLIERIES, TRAMWAYS, RAILWAYS, IRONWORKS, IRON-STONE, LEAD, TIN, COPPER, SULPHUR, SALT, GOLD & OTHER MINES, CHINA CLAY WORKS, BRICKYARDS, &c.

Our simple and effective Patent method of fitting up wheels and axles secures freedom, both from wheels working loose and breakages. We only manufacture the best quality, and in addition to the now universally admitted superiority of Hadfield's Steel Wheels over those of cast iron for lightness, strength and wearing qualities, it has been proved that our wheels also possess the following advantages over any other steel, malleable iron or other wheels, viz:—**EXTRA TOUGHNESS, TENACITY, DURABILITY & SOLIDITY.**

The best proof of this is that we have now in daily use, and giving every satisfaction **MORE THAN**

**ONE-AND-A-HALF MILLION.**

**GOLD MEDAL 1878 PARIS**

**SPECIAL DIPLOMA OF HONOR SILVER MEDAL SYDNEY 1870**

**FIRST CLASS CERTIFICATE SILVER MEDAL CALCUTTA 1884**

This sketch is engraved from a Photo of a pair of Hadfield's 9in. Steel Wheels and Axles, which accidentally fell down a shaft 500 yards deep in Staffordshire. Beyond being bent as shown they were uninjured, being neither broken nor even cracked. As regards durability, "Engineer" of August 5th, 1881, illustrates one of Hadfield's 9 in. Colliery Wheels that had been at work over 5 years, making in that time 96,190,000 revolutions, running 41,000 miles, carried about 10,000 tons of Coal, and was worn little more than 1/4 in on the tread.

We also solicit attention to the following articles, which, in addition to our well-known Patent Steel Wheels and Axles, we are also now largely supplying in our CAST STEEL, on account of their great strength combined with durability and lightness.

**Rollers, Pulleys, Angle Sheaves, Frames, Stands, &c.**—See our lists of over 250 different patterns. They possess great durability, lightness, and strength, and add considerably to the life of the steel or other ropes.

**Self-oiling Wheels (Patent)**—Many thousands now at work. Save at least 50 per cent. of oil or grease. Easily charged or re-filled. Reduce friction and wear and tear to a minimum.

**Pedestals, Bushes, Cage Guides, Buffer Boxes, Points, Crossings, Wedges, and other Steel Colliery Castings and Forgings of every description.**

Over 2000 different patterns of above in stock, ready for use on the shortest notice. New patterns made to suit special requirements free of charge for quantities.

The above sketch shows a tensile specimen (one-third full size) turned out of one of Hadfield's unhammered Steel Castings, tested by H.M. Govt. and stood 45 tons per square inch, tensile strain, and 20 per cent. elongation. Our raw material, and finished Steel Castings are subject to strict chemical analyses, and tested for mechanical strength by H.M. Govt., Kirkaldy, Admiralty, Prof. Kennedy, Huntington, &c., giving tensile strains of from 32 to 65 tons per square inch, (varying according to purpose required) and up to 20 per cent elongation.

**OVER 1100 DIFFERENT WHEEL PATTERNS IN STOCK**



**HECLA**

**STEEL FOUNDRY**

**STEEL CASTINGS**

**ATTERCLIFFE**

**SHEFFIELD.**



REGISTERED TELEGRAPHIC ADDRESS: HADFIELD SHEFFIELD

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## Law Intelligence.

## TRADEMARKS FOR GALVANISED IRON.

In the Chancery Division, on Monday, Messrs. Davies and Co., of the Crown Galvanised Ironworks, Wolverhampton, applied to Mr. Justice Chitty for the direction of the Court that a trademark which had been used by them ever since 1872 might be registered as an old mark.

Mr. Aston, Q.C., and Mr. Willis Band appeared for Messrs. Davies and Co.; Mr. Romer, Q.C., and Mr. John Outler opposed for Messrs. Hetherington.

According to Mr. Aston's statement of the applicants' case, application was originally made for the registration of two marks, 29,179 and 29,188, set out in the *Trademark Journal*. One of the marks in question was a combination of words, "Crown Brand." That was the trademark of 1879, and the other was a combination of a greater number of words, "Davies 'Crown Brand' Brothers." When the application was first made it was opposed by Messrs. Hetherington, who were now opposing. Messrs. Davies and Co. alleged that they and Messrs. Hetherington had a brand which at the application for registering the 1879 mark was not proceeded with, because Messrs. Hetherington agreed they would not oppose if they would not apply for registration of the compound trademark of 1880. Messrs. Davies and Co. accordingly abstained from proceeding with the application of 1879, although it was an old mark, and they believed they could support their claim; but, inasmuch as the 1879 mark was incorporated with the application of 1880, Messrs. Davies and Co. had been satisfied to stand on their application for the major combination. They were now aggrieved by Messrs. Hetherington opposing their application for leave to register the compound combined mark of 1880 averring as a reason that at the time the agreement was made they had not taken legal advice on the subject.

Mr. ROMER, interposing, said his clients alleged that there was no agreement. It had been said that the agreement was contained in a letter, which Messrs. Davies and Co. had acted upon.

Mr. JUSTICE CHITTY observed that the real question was whether the applicants were entitled to register the 1880 trade mark, and whether Messrs. Hetherington and Co. had done anything to preclude them from opposing. After some further observations, his lordship said, if the words "Crown Brand" were common the applicants could not register without a note disclaiming the common words.—Mr. ASTON said his application was that the words "Davies Brothers" might be registered in combination with common words.—Mr. JUSTICE CHITTY said that would not do.

Mr. ASTON then proceeded to show, according to the evidence, that the words "Crown Brand" had never been used in connection with galvanised iron, though he admitted that both in the galvanised and in the black iron trades it had been common to stamp the goods with a crown as an emblem.

Mr. JUSTICE CHITTY, in giving judgment without calling upon the opponents' counsel, said that Messrs. Davies Brothers sought to register the words "Davies 'Crown Brand' Brothers," and they sought to register under the Act which had been repealed. The applicants proved that they had used the words "Crown Brand" in combination with the words "Davies Brothers," before the Act of 1875 was passed, and therefore it was what was called an old mark, and that they were *prima facie* entitled to register. The case made on the other side was that the term "Crown" was common to the trade, and in support of that contention they read several affidavits. Messrs. Hetherington said the words "Crown Brand" were and had been used for a very long time to denote the goods of various manufacturers of galvanised iron, and they gave instances of more than three. Mr. Tidd said the emblem of a crown and the word "crown" were common to the galvanised iron trade; and Mr. Walker also (all these witnesses being in the trade) said that his firm registered in May 1877, the trade mark of a crown with the letter "W." Messrs. Davies had filed an affidavit which their counsel, Mr. Aston and Mr. Willis Band found great difficulty in dealing with, because instead of informing the Court of facts it was merely an argument, and did not show that the applicants pledged their belief that a crown, or the words "Crown Brand," had not been commonly used in the trade. The case therefore made by the respondents remained wholly uncontradicted, and he came to the conclusion that "Crown" and "Crown Brand" were common to the galvanised iron trade, and could not be registered without a disclaimer to that effect.

## EDINBURGH COURT OF SESSION.

FIRST DIVISION—TUESDAY, March 10.

(Before the LORD PRESIDENT, LORDS MURE, SHAND, and ADAM.)

PETITION.—ALEX. MOORE, C.A., LIQUIDATOR IN THE WINDING-UP OF DAVID SWAN AND COMPANY (LIMITED) AND OTHERS.

A petition has been presented to the First Division by Alex. Moore, C.A., liquidator in the winding-up of David Swan and Co. (Limited) for continuing the winding-up, subject to the supervision of the Court. The petition states that David Swan and Co. (Limited) was incorporated on Jan. 23, 1880, the object of the company being to take a lease of the spelter manufacturing works belonging to Mr. David Swan, spelter manufacturer, Maryhill, to carry on the spelter manufacture there, and to lease or purchase mines in Greece for the working of calamine ore. The capital of the company was 40,000*l.*, divided into 4000 shares of 10*l.* each, of which 1475 were taken up at the date of the constitution of the company, but Mr. Swan, subsequently, by arrangement, cancelled 500 shares of his calling. The company had not been successful, and in January last they were obliged to stop payment, being then insolvent. The company was afterwards wound up, and Mr. Moore appointed liquidator. It was expected that the affairs of the company would be wound up under the voluntary liquidation; but Mr. William Calvert Jones, engineer, 87, rue, Greece, an alleged creditor of the company, had raised an action against the company for an alleged debt of 600*l.*, and was attempting to secure a preference therefor over the just and lawful creditors of the company. In these circumstances it had been thought necessary to place the winding-up under the supervision of the Court.

The petition was granted.

## ACTION FOR BREACH OF CONTRACT AT GARNANT COLLIERY.

## ALLEGED DANGEROUS PRACTICE.

An action for breach of contract was tried at the Town Hall, Llandilo, on Saturday—before Messrs. J. Peel, J. W. G. Hughes, G. Strick, and H. Peel—in which Mr. Abel Thomas, instructed by Mr. W. Randall, Llandilo, appeared for the defendants, and Mr. T. G. Williams, Llandilo, for the Garnant Colliery Company, Cwmamar.

Mr. THOMAS said there were six separate summonses, but as the charge in each case was identical, he asked the Bench to take one—the decision in that to govern all. The action was a civil one, and the damage in each case was laid at 1*l.*

Mr. WILLIAMS, in opening the case, said the plaintiffs were the owners of the Garnant Colliery, the name of which had been rendered familiar by the sad catastrophe which occurred there in January, 1884. Plaintiffs charged the defendant (W. Rees) with absconding himself from work on Feb. 11, thereby causing a loss to the company, by reason of which they claimed the sum of 1*l.* as compensation. A man named Jones had been appointed inspector of the ropes and machinery, to whom the men objected; but the manager had great confidence in him, had known him seven years, and appointed him six months ago. There was no excuse for the colliers objecting to him. The previous accident through the breaking of the rope had made them very careful about inspecting it, and the colliery was now managed carefully and diligently. Because Mr. Hay would not appoint another man in addition to Jones at the expense of the company to inspect the ropes, they refused to work.

Mr. THOMAS said the defence was that the men refused to work in consequence of an accident that had occurred the previous night. The men were entitled to say what precautions should be taken for their safety.

Mr. WILLIAMS admitted the men of the night shift had had a miraculous escape the previous night, but that it was the fault of the engineer in lowering the trams.

Mr. HAY, manager of the colliery, said that on Saturday morning, Feb. 14, the defendants told him they were instructed by their fellow-workmen to say they would not go down the pit until he changed Jones, the mechanical engineer. They did not say they would not go down because the trams had been running wild. On the Monday witness saw a body of the men after he had been to Llandilo to institute legal proceedings. The defendants were amongst them. He impressed upon them that he was responsible for the appointment of the officials. J. Davies, the overman, told witness that the men were willing to go to work providing that they were allowed time to clear from the lamp room before the trams were started on the incline. Witness considered 15 minutes sufficient for them to clear away. They would not be safe from the trams until they had got to the bottom of the incline, which was 1100 yards in length. There would always be danger if the trams were lowered as on the Friday. It was neglect on the engineer's part. He was willing to give instructions that the trams should not be started until the men had given a signal that they were at the bottom of the pit. Witness assessed the loss to the company by the stoppage of the colliery at 23*l.*

Mr. THOMAS said he hoped to show that the men were entitled to say, "We cannot go down to the colliery as our lives are in danger," and that the plaintiffs were not entitled to sixpence.

J. DAVIES, the overman, having given evidence, Mr. A. THOMAS asked the Bench to say that Mr. Hay wanted to put his men into unnecessary danger.

W. REES, collier, working at the Garnant Colliery, said on Saturday, the 14th ult., he went to the works between 5 and 6 in the morning. He and others of the day shift had heard of an accident the previous night. They had a meeting about it, and he and others went as a deputation to the manager. They complained to him about the examiner, Mr. Jones, about unpaid half turns, and about the lamp station. They referred Mr. Hay to the accident of the previous night, and of the accident in January, 1884, in which one of the deputation had a brother killed. Mr. Hay said he would not move the lamp station. They returned and told the other workmen. He would not go down the pit because there was danger. On Monday Mr. Hay arranged with them about signalling before the trams were sent down. Directly it was arranged they went to work. The only reason why they refused on Saturday morning was because of the danger.

John Price, Berry Thomas, Evan Jones, and David J. Noah Jones, also of the deputation, gave corroborative evidence.

The Bench retired, and on returning into Court, Mr. PEEL said, "The Bench have well considered the case, and are of opinion that there was sufficient ground for the men not going down. We think, under the circumstances, there was no breach of contract."

## Meetings of Public Companies.

## NEW KITTY MINE COMPANY.

The four-monthly meeting of shareholders was held at the offices of the company, Walbrook, on Tuesday.

Mr. JOHN B. REYNOLDS in the chair.

Mr. W. JOHN REYNOLDS (the secretary) read the notice calling the meeting.

The accounts, which were read, showed a balance of 31*l.* 4*s.* 2*d.* due to the bankers; beyond this amount there were no liabilities due and unpaid.

The CHAIRMAN read the following report from the agent:—  
March 9.—Since the meeting held on Nov. 26 last we have confined our operations at Thomas's shaft to the driving of the 20 and 40 east. The 40 is driven about 12 fms. east of the shaft; lode in the present end about 2 ft. wide, composed of mundie, peach, a little copper and tin ores; very much the same as the lode was in West Kitty Mine just before we cut into the great course of tin. The 20 is driven east of Thomas's shaft about 24 fms.; lode in the present end of a very promising character, the same as in the 40. At the adit level which is brought up to Thomas's shaft from Wheel Kitty, on the course of the lode, a distance of 140 fms., I find large excavations have been made both in the back and bottom of the level, and I have been told that large returns were made of both tin and copper from these old workings. I have every reason to believe the statement true, seeing that so much ground has been taken away. Our 20 driving east will very soon be back under these old workings, and seeing that the lode has continued to improve for the last 5 fms. driven both in size and character, I am looking forward to reap important results very soon at this point. I would state that the rich course of tin in West Kitty is under the large excavations that I have referred to in the adit level at New Kitty.—Engineer's report: We continue to drive the 50, west of cross-cut; lode at this point small and poor.—Wm. VIVIAN.

The CHAIRMAN said—Gentlemen, you have had read to you the statement of accounts and the agent's report. By the former you will see that the accounts have been kept in the usual satisfactory manner, and that we meet here to-day without having to consider the very annoying question of arrears of calls. (Hear, hear.) I am very thankful that the shareholders pay up so well in New Kitty. I think if they did not pay up well, and did not by so doing enable us to meet the liabilities as they become due, I should not be able to assure the shareholders that they could with safety have their names on our books. But, inasmuch as they do pay up in the most satisfactory manner, I have no hesitation in saying that your names are as safe on these books as they are on the books of the Bank of England. I am led to make these observations because of certain remarks which I have seen in print with reference to another system and to another company. I do not care what the system is; but I will challenge anyone to find a better system than that under which New Kitty is worked. I refer to the "No Credit System"—(hear, hear)—and we must stick to that. There was a time when the mention of it was received with a sneer. That time is gone by—the system is now looked at as a very serious and pleasing reality. Passing from the accounts, you will see from the agent's report that although we have not yet met with a rich deposit on the banks of the Bank of England, I am led to make these observations because of certain remarks which I have seen in print with reference to another system and to another company. I do not care what the system is; but I will challenge anyone to find a better system than that under which New Kitty is worked. I refer to the "No Credit System"—(hear, hear)—and we must stick to that. There was a time when the mention of it was received with a sneer. 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to the engine-man, so that he might work it independently of the steam-boiler. The CHAIRMAN said the engines would be supplied with a foot-brake.

Mr. HUSBAND said it was of the utmost importance that there should be some additional control over the engines, for if anything went wrong with either of the steam cylinders they would have a difficulty.

The CHAIRMAN remarked that the object of introducing the steam brake was to reduce risk to a minimum.

Mr. HUSBAND admitted there was no harm in having the steam brake, but urged that they should also have starting handles in case anything went wrong.

The CHAIRMAN said if they introduced the brake suggested by Mr. HUSBAND, the next engineer who saw the engine would probably say they were too complicated. The engines had been criticised over and over again. The starting-gear was introduced contrary to their original intentions, and even now it was condemned.

Mr. BARNETT: What would be the cost of adding to the engine additional starting power?—Mr. HUSBAND: It will be a trivial matter; perhaps 10s. or 15s.

Mr. BARNETT: Hand starting gear can be added to the engine?—Mr. HUSBAND: You can add it; but the arrangement will not be so convenient as if it had been fixed at the same time as the other.

Capt. TREVENA, replying to a SHAREHOLDER, stated the average of their produce was about 85 lbs. of tin to the ton. Since the last account their eastern ends had come in contact with the cross-course, and that had made a difference in their returns.

The CHAIRMAN, replying to Mr. BLIGHT, said the tin return was equal to the quality entered in the sample book.

On the motion of Mr. J. G. BOYE, seconded by Mr. SAUNDERS, the accounts were passed; and, on the motion of Mr. BARNETT and Mr. RICHARDS, a dividend was declared of 2s. 6d. per share—750s.

Capt. TREVENA, in reply to a SHAREHOLDER, said he could not hold out any hope of the returns being increased to any great extent during the next three months. They might rise a ton or two more, but the adventurers must not look for any great increase as yet. They had about 60 men working in unproductive ground and 95 stopping.

The CHAIRMAN stated they were at present receiving 2s. 7s. 6d. a ton more for their tin than in the beginning of February. The present price was 43s. 15s. per ton, and the average for the quarter was about 42s. 10s.

### THE ARIZONA COPPER COMPANY

The first annual general meeting of the Arizona Copper Company (Limited), the new company, was held, yesterday week, at Edinburgh. There was a comparatively small attendance. The chair was occupied by Mr. G. AUDJO JAMIESON, C.A., Chairman of the company, and the other directors present were—Sir George Warrender, Bart., Mr. Colin J. Mackenzie, of Portmore, Mr. John Wilson, and Mr. J. Duncan Smith.

The CHAIRMAN said they would not expect that he would make any observations at great length, since he had had so recently an opportunity, at the first meeting of the new company, of making a statement in some detail on the affairs of the company. The report which had been presented was, he was afraid, unduly lengthy and complicated in its figures; but they would remember that the past had been a very complicated year, and, accordingly, the report and the figures now submitted truly reflected the complicated nature of the transactions recorded. It had been the aim and object of the directors and the officers of the company to submit this report in such a manner as to clear up all the difficulties, embarrassments, and complications under which the company laboured, so that those who should meet the shareholders next year might be free from those difficulties and complications. When the magnitude of the figures was dismissed from view, the true meaning of the report was not doubtful. He hoped it was sufficiently intelligible to them all, and made clear the exact position of the company's affairs. In many respects difficulties and embarrassments still remained; but, in the main, the company were infinitely in a better position than they were on the occasion of the last annual general meeting. (Applause.) The directors were now enabled to report that they had been able to arrange for the meeting of the debts of the company, and that the company was now virtually in this position—that although it still continued to have some creditors, none of them were unfriendly. (Applause.) The position of matters, as disclosed in the report, did not seem to call for much individual explanation. The report by Mr. Davies, appended to that of the directors, explained itself. To clear away misapprehension, he should say it was merely a report prepared at the request of the directors for their own guidance, rather than one containing elaborate returns on the company's deposits, or on the prospects for the future. It was in many respects a satisfactory character. Notably, it showed them that the Metcalf section of the company's property was of a valuable and important character, and that very large deposits of ore remain there. But at the same time it showed how very rapid are the alterations that take place in these matters. His report had hardly reached them when the directors learned that, from the great fall that had taken place in prices, it was deemed inexpedient to use the supply from the Metcalf section, and that they were really dependent on the support of their output from the more rich and valuable deposits of the Longfellow section. This was an important lesson, because it showed practically, in their own experience, what they knew was taking place with others—that it was only the richer and the more valuable ore, from which at present prices copper could be made with any profit at all. Proceeding to speak on their monthly reports, he pointed out that in some respects they were misleading. Comparing the output of December with that of February, they would see that during the latter month they had diminished very greatly—due, as he had said, to the fact of those that represented them at Clifton finding it impossible for them to make copper from the Metcalf section at a profit. People might be apt to think, therefore, that profits were also diminishing. The reverse was the case. The returns for February were very much diminished in amount, but they would show a profit for the month. Surely it was far better to have 200 tons of profit than to have 400 tons of loss at a loss. He thought it right at this stage to present the feelings of the directors with reference to the publication of these returns. They were surprised to learn that some of their constituents thought they were carrying on the affairs of the company with undue secrecy. Nothing was further from their wish or intention. (Applause.) But when they considered the delicacy of the task they had to perform, surrounded as they were by rivals, considering the many difficult details in management that must from time to time be considered, the directors felt that the publication of these returns at such short intervals were very embarrassing, and precisely misleading. The little of the certain he had lifted illustrated this. At the present moment they were considering whether they should not considerably increase their output. So far from desiring reticence or secrecy in their management, their desire was to take the shareholders into confidence so far as was consistent with the safe administration of their affairs. The directors had nothing to conceal, nothing that they did not desire the shareholders to know, that was detrimental to the company, or that was unfavourable to their position; but they did think that there was a certain amount of reticence and care necessary in conducting those difficult affairs, which would induce them to publish the returns at such short intervals.

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As regards America, he read several extracts from an article in a paper of high standing—a carefully considered article, he said, and full of statistics. The last passage is as follows:—"We believe, therefore, as we have already remarked, that in this, the largest producing market in the world, the maximum of production has been nearly reached; and if so, it almost follows that the lowest limit of price has been touched; for even more remarkable than the rapid production of the past four years has been the complete absorption of the enormous supplies. If, therefore, this growing source of supply be checked, and the new industries that have absorbed it, continue to grow, the inevitable result must be a rise in price."

This summary of the opinion of those best qualified to judge, and they had some reflection of it in their own experience. The prices at which they were selling their copper now were at least higher than those at which they were selling it a month ago. (Applause.) He would not say that the tide had turned; but, so far as he was qualified to judge, he would say this—it had ceased to ebb. They were, therefore, in the position at which it was not unreasonable to expect that those who would meet this time next year would have before them,

the report of a better state of matters than that even of the present. (Applause.) The directors regretted that the day after the meeting, but after a holiday, he would return to their service. He had to announce as a matter of great satisfaction that Mr. John Wilson, having to go to America on the business of another company, had been good enough to say that he would visit their works at Clifton, and Mr. Smith and he would spend some considerable time there within the next six weeks. (Applause.)

Sir GEORGE WARRENDER seconded the adoption of the report. He expressed great gratification at the manner in which the Chairman's remarks had been received, and at the appreciation with which all he had said had been regarded. It was an evidence of the confidence the shareholders had in him as Chairman. (Applause.)—The motion was unanimously agreed to.

Mr. DAVID BRAND, advocate, expressed his own satisfaction, and that of many of the shareholders, at seeing the excerpts in the directors' report from the report of Mr. Davies, and at the statement that the works were now in a position to manufacture copper on conditions as favourable as could be provided; that, so far as the available supply of ore was concerned, the future of the company might be regarded as assured; and, further, that the company would be able to carry a large amount of copper over at present prices. For the present position of the company, and the prospects before them, they were largely indebted to the efforts of the board, and to none more so than to the Chairman and Sir George Warrender. (Applause.) He begged to move their re-election to the board, and also that the remuneration of the directors for the current year be fixed at 1605s. (Applause.)—This was seconded by Mr. CLAUD HAMILTON, and agreed to.

On the motion of Mr. LAWRIE, seconded by Mr. MITCHELL THOMSON, Messrs. Howden and Molleson, C.A.s, were re-elected auditors of the company; and on the motion of Mr. JOHN WILSON, the formal vote of thanks was accorded to the Chairman.

Immediately thereafter, a formal meeting of the Arizona Copper Company (Limited)—the old company—was held to receive a report by the liquidators.

The CHAIRMAN said, as a matter of form, he begged to submit the accounts of the liquidators. These are included in the report, a summary of which has been already published.—There was no other business.

### RAVENSCLEIFF MINING COMPANY.

An ordinary general meeting of this company was held, on Tuesday, at the Cannon-street Hotel.

Mr. FREDERICK PETERSON WARD in the chair.

Mr. C. GRAINGER (the secretary) read the notice convening the meeting and the report of the directors was taken as read.

The CHAIRMAN said that they were all aware of the circumstances of this company and what was proposed to be done by the full statement made in the two reports which the shareholders in this and the Yorke Peninsula Mining Companies had received. They knew that as regards the Ravenscleiff Company they had had considerable difficulties to contend with, owing to the unprecedentedly stormy weather not only during the rainy season, but during also what ought to have been the favourable season. That circumstance alone had prevented their success in raising the gold and silver, and had caused a considerable delay in time, and an expenditure of capital which was to be regretted. At the present moment their operations were delayed for finer weather, and if the scheme they set forth in the report should be carried out successfully, they would have the means not only of carrying on their present operations with success, but also of acquiring other promising properties, some even more so than those they held at very reasonable rates, and no doubt it would be very desirable to acquire and work those properties. He did not know that he need go into any very lengthy observations on the affairs of the Ravenscleiff, they were so fully set forth in the report that he preferred to defer any observations he might have to make, and to give them in answer to shareholders who might desire to be better informed. Of course the agreement had only been provisionally entered into between the companies, and was subject to confirmation, otherwise it would not come into effect. He thought he had said sufficient for the present, and therefore concluded by moving the first resolution:—"That the report of the directors to the shareholders, with the accounts thereunto annexed, be received and adopted."—Mr. RICHARD BRYAN OTTLEY seconded the motion, which was carried unanimously.

Mr. E. P. Ward and Mr. R. Ottley, retiring directors, were re-elected, and Mr. George T. Rait, F.C.A. the retiring auditor, was re-appointed.

The CHAIRMAN said that the resolutions he had to move would necessarily follow on the report. He moved—(1) "That the capital of the company be, and hereby is, increased by the creation and issue of 100,000 ordinary shares of 1s. each, and that such shares, or any of them, may be issued by the directors of the company at such time, or times, and either wholly, or in part, as shares, upon which the full, or any part of the amount thereof, shall be deemed to have been paid up, and either in full or below par, and upon such terms and conditions as the directors of the company shall think fit." (2) "That it is expedient to effect an amalgamation of the Yorke Peninsula Mining Company, and that the agreement dated Feb. 25, 1885, and made between Edmund Tifford, on behalf of the Yorke Peninsula Mining Company (Limited), of the first part; Henry Napier Chipp, on behalf of the debenture-holders of the company last mentioned, of the second part; and this company, of the third part, be, and the same is, hereby approved." (3) "That the directors be, and they are, hereby authorised to carry the said agreement into effect, with or without modifications, as they may see fit."—The agreement was on the table; it was rather lengthy, but if any shareholders desired to hear it read, of course it should be read for their information.

No desire to that effect being expressed, Mr. OTTLEY seconded the resolutions, which were carried unanimously.

The CHAIRMAN said that any shareholder desiring to see the agreement, by calling at the office could do so, and also the form of debenture.

A vote of thanks to the Chairman and directors then terminated the proceedings.

### GREAT WESTERN COLLIERY COMPANY (LIMITED).

On Thursday afternoon the annual meeting of the proprietors of the Great Western Colliery Company (Limited) was held at the office, St. Stephen's-street, Bristol.

Mr. JOSEPH WETHERED in the chair.

The CHAIRMAN, in moving the adoption of the report and accounts, said they had erected during the past year 20 new coke ovens, but these had replaced other ovens in which no reduction had been made, and they were, in reality, a substitution for the other ovens, and as nothing had been written off the previous ovens, they thought it would be erroneous to place those to any other account than revenue. The amount of the sinking fund was 13s. 8d., which must have attracted their attention, and it was gratifying to be able to add 5000s. odd which had previously been allotted for that purpose. The coal and coke sales for the year amounted to 12,000s. more than in 1883, which arose almost entirely from the fact that they rose 24,000 tons of coal more during the last year than they did in the previous year. He might state that in 1879 they raised 187,000 tons; in 1880, 234,000 tons; in 1881, 261,000 tons; in 1882, 301,000 tons; in 1883, 321,000 tons; and last year, 390,000 tons. By and by they would be able to supply the country with what would actually extend to collieries. He might state that they had raised 1,600,000 tons of coal, which realised three-quarters of a million of money, without their making a single bad debt. Whatever judgment might be exercised with regard to their working in the future, they could not have to regret that, and he thought it was quite unique. (Cheers.) With respect to the contribution towards making Barry Dock last year, no credit was taken for that. They hoped to be able to get it back; but this year, although placed on credit on January 1, it had been received in cash since. He was still very firmly of opinion that had it not been for the attempt to raise the money by the dock, the Barry Dock would not have been promoted, and that item would not have been in the accounts. Turning to the balance-sheet, he might say that the liabilities were the same as at the commencement of the company. As to loans on mortgages and debenture bonds, 1700s. had been paid off the cottages, and according to the rules of the society under which they had a mortgage, the amount of mortgage would be gradually extinguished. Debenture bonds of Class A to the amount of 10,355s. had been paid off, and notice had been given to pay off the remainder next month. The cash in hand would enable them to do that and pay the dividend the directors would presently ask them to declare. The amount required for accidents was very small last year, and what was required had been paid out of revenue. When he stated that the whole colliery property of the kingdom had possibly not paid 1 per cent. on the year, and when they reflected upon what the condition of that colliery was six or seven years ago, the present balance-sheet must be considered very satisfactory. (Cheers.) The price of coal at Cardiff was very different from what it was last year; it was lower, and it might go lower still, or it might rise. It was a matter upon which there was a variety of opinions, but if they took an average of years past, and looked forward to the period to come, considering the position of the colliery, the excellency of their coke, and the foresight in making the arrangements, he thought they might have a remunerative income for the money they had invested in the future. (Cheers.)

Mr. C. H. JAMES (Merthyr) seconded the adoption of the report and accounts.

Mr. ALEXANDER (Cardiff) referred to the proposed sinking to the lower measures, and would like to know, first, what the cost of sinking to those measures would be, and, next, if at the present moment there was not sufficient coal workable in the colliery independent of going to those measures at all. Then if arrangements were made for working the lower measures, what were the arrangements? Had the directors taken steps to get a fresh lease from Mr. Lewis Morgan at the end of the present term? He had had representations made to him from those in the district that the company would spend too much money considering their short lease—21 years—in proving the lower measures.

Mr. C. THOMAS (director of the Midland Railway Company) said it would be better for the directors to keep any information on the points brought forward by Mr. Alexander to themselves than to make it public, as that might hamper them in their future negotiations.

The CHAIRMAN said when the time came that the information could be revealed to the shareholders without injury it should be given. As to any expense in working the lower seams, the directors had not proceeded to any extent that would be injurious to the shareholders: 2000s. would be sufficient for proving the seams, and until they had proved them and knew that they would pay for working, the directors would not spend money in developing them. Those lower seams had been proved at no great distance from the colliery—about 4 or 5 miles—and they were not worked. The quality of the coal was equal to that of the upper seams, and the working was cheaper.

Mr. ALEXANDER remarked that he was satisfied the interests of the company were being properly looked after, and considered the explanation of the Chairman satisfactory.

The report and accounts were then adopted.

The CHAIRMAN moved, "That the directors be authorised to pay a dividend

of 5s. per share on the 8907 ordinary shares of class B for the half-year ending Dec. 31, last income tax, on April 1.

Mr. T. WILLIAMS (Merthyr), in seconding the resolution, said he was proud, in the depression of trade, they could declare such a dividend.

The resolution having been carried, the CHAIRMAN proposed that 22s. 4s. be paid to Mr. C. H. James, of Merthyr, for making a check survey of part of the colliery workings.

Mr. T. FORSTER BROWN (Cardiff) seconded the resolution, and said they should have gone to Mr. James for the work, as he was an authority in mining surveys, and he had not been a director. (Cheers.) The vote was agreed to.

Afterwards, on the motion of the CHAIRMAN, seconded by Mr. G. B. KENNEDY (director of the Severn and Wye Railway Company), 20 guineas were voted to Mr. A. Levy for services he had rendered when the company was reconstituted.

On the motion of the CHAIRMAN, seconded by Mr. ALEXANDER (Cardiff), Mr. T. FORSTER BROWN was re-elected director.

Mr. FORSTER BROWN returned thanks, and said the success of a colliery was seen in it being able to weather storms, and their company was successful through the ability of the board.

On the motion of the CHAIRMAN, seconded by Mr. WILBERFORCE TREBE, Mr. G. E. SWITHINBANK was re-appointed auditor.

Mr. C. H. JAMES (Merthyr) proposed a vote of thanks to the secretary (Mr. W. Briggs), the agents, and officials of the company, for their exertions during the past year.—Mr. T. THOMAS (Merthyr) seconded this, and it was carried.

A vote of thanks to the Chairman and directors, on the motion of Mr. HERBERT THOMAS, seconded by Mr. JOSEPH TOWNSEND, terminated the proceedings.

### THE YORKE PENINSULA MINING COMPANY (LIMITED).

The annual general meeting of shareholders of this company was held on Tuesday at the Cannon-street Hotel.

Mr. FREDERICK PETERSON WARD in the chair.

Mr. C. GRAINGER (the secretary) read the notice convening the meeting, and the report of the directors was taken as read.

The CHAIRMAN said: I think I shall best consult your convenience by making my opening observations as brief as possible. I have no doubt that some discussion will take place, and some enquiries be made as to the contents of the report, and I will reserve any necessary information on those subjects until I hear what may be said on them. The report is so full that it almost obviates any necessity on my part to enlarge upon it. I have no doubt it will be perfectly intelligible to you all, and probably you may have come here with your minds made up as to the course to be pursued. I need hardly say that on this side of the Atlantic, if anything, we feel much greater regret than you do that we have been unable to present a more satisfactory report, and that greater success has not attended our operations than we can announce to you to-day. You are aware, probably, that at the last meeting, at the end of 1883, at the invitation of the board a committee was appointed to consult and confer with the directors as to what should be done to promote the best interests of the company. We have had several meetings together, and I may say we all agree to the scheme which I now place before you, and which we as a board have adopted. I may say that "nothing succeeds like success," and if the price of copper had kept the same as it was three or four years ago, when we made a dividend, we should have been in very flourishing circumstances; but we cannot successfully struggle against a falling market price such as we have had to meet for many years. I believe the fall in the price of copper is quite unprecedented; though we might make a fair distribution of profit at a price of 14s. 6d., that is not possible when it is 9s., or even less, a unit, for I am told that since the report was issued it has fallen a further 3d. That explains the whole thing. Of course we are prepared to hear from some shareholders that they are dissatisfied with the state of things, but the whole matter finds its solution in that single circumstance, and no other. I may say, on behalf of the board and the officers, that everything has been done that they could possibly devise for the purpose of promoting the interests of this company, and to sustain the separate interests of different classes of shareholders and debenture-holders. I may further say that this scheme has been very much advised in the interests of all parties, and I should like to show each section of proprietors what its position is. As regards the ordinary shareholders, unless they agree to it they will be nowhere. They would have no possibility of getting anything out of the realisation of the company, therefore it is a foregone conclusion with regard to them. As regards the preference shareholders, they are very much in the same position in that respect as the ordinary, because you require to obtain something like 40,000s. in order to discharge the debt to the bank, and to pay off the debenture-holders. The debenture-holders have the first claim before the preference-holders come in at all, and unless you see your way to raising something like 40,000s., you would only then pay off the debentures; therefore, this scheme is devised for their benefit, and it is in their interest to assent to it also. As regards the debenture-holders, it is the interest to assent, because if the property were to fall into their hands they have to pay off the bank debt, and then to raise the capital to carry on the affairs of the company. These are difficulties which, I think, combine to induce the shareholders, ordinary and preference, and debenture-holders, to assent to the only scheme which can reasonably be devised for the benefit of all parties. I may say the Ravenscleiff Company has had its meeting, and passed without dissent the necessary resolutions for amalgamating with this company; and it possesses some advantages which the Yorke Peninsula Company does not possess in the comprehensive and elastic character of the articles which will enable us to extend our operations. You probably may have read the report, and may know the condition of the Ravenscleiff Company. I may say it has in view some very desirable properties which have been offered in the neighbourhood, but which we were unable to accept from want of means, and by this amalgamation we think a good thing may be done with the Ravenscleiff, and we may hope at the same time to be successful in turning to good account the assets of the Yorke Peninsula. I will conclude by moving that the report of the directors to the shareholders, with the accounts thereunto annexed, be received and adopted.

Mr. H. B. OTTLEY seconded the motion, which was carried unanimously.

Mr. Ottley, the retiring director, was re-elected, and Mr. Charles L. Whelan, the retiring auditor, was re-appointed.

The CHAIRMAN then moved the following resolutions:—(1) "That it is expedient to effect an amalgamation of this company with the Ravenscleiff Mining Company (Limited).—(2) That with a view thereto this company be wound up voluntarily, and that Mr. Chas. Grainger and Mr. Frederick Turner be and they are hereby appointed liquidators.—(3) That the agreement dated the 28th day of February, 1885, and made between Edmund Tifford, on behalf of this company, of the first part; Henry Napier Chipp, on behalf of the debenture-holders of this company, of the second part, and the Ravenscleiff Mining Company (Limited) of the third part submitted to this meeting be, and the same is hereby approved, and that the company's liquidators be, and they are hereby authorised, pursuant to section 161 of the Companies Act, 1862, to adopt the said agreement, and to carry the same into effect, with such modifications, if any, as may seem to them expedient in the interests of this company." The agreement was on the table; it was rather lengthy, but if any shareholders desired to hear it read, of course it should be read for their information. So desired that effect being expressed, Mr. OTTLEY seconded the resolutions, which were carried with only one dissentient.

Mr. G. FRITCHARD asked what properties the Ravenscleiff had that would help them out of their difficulties. At present he thought that it would not be advisable to expend more money on mining operations?

The CHAIRMAN said that he should have been glad if the hon. shareholder had made the observations before, as they had now adopted the report and passed the resolution; but, as a matter of courtesy, he would be happy to reply. The main point which the directors of the company had in view in making the agreement was to benefit the Yorke Peninsula Mining Company's shareholders, and to get their property out of the hands of the bank who at present held it. That was the main foundation of the whole scheme, and to save the assets which were of considerable monetary value on paper, but would only be actively available if they were able to obtain capital and work, or for a time retain them. He regarded the Ravenscleiff Company, they had unprecedentedly bad weather, not only in the ordinary winter season, but also in the season which ought to be dry, and the consequence had been that their operations had been interfered with by tremendous rushes of water, which had damaged the windmills and machinery. All the necessary machinery was on the spot for pumping out what was practically a small lake of water, and if they had ordinary fair weather and a favourable season that water would be pumped out. They thought that very good results would follow a very small expenditure of capital on this undertaking. He thought that in the scheme the Yorke Peninsula would be quite as much gainers as the Ravenscleiff; if they did not carry this arrangement out, they would be a loss to the company. The question was whether it was not worth while to combine to save the interests of all parties. A SHAREHOLDER: If this effort to get capital does not succeed, the Ravenscleiff fails.—The CHAIRMAN: That does not at all follow. The Ravenscleiff Company may take other means to raise capital for its own purposes in a variety of ways.

Mr. G. T. RAIT said that this was an optional matter, both as regards the ordinary and preference shareholders of the Yorke Peninsula. He thought they had no right to assume that the Ravenscleiff Company would not exist if they did not choose to take their shares. In the event of a compulsory liquidation, the shareholders' ordinary capital was gone; but this scheme gave them a chance of saving something. It was simply an option given to those who chose to avail themselves of it, and if they did they would go into a company on the basis of which he could answer for. He had traced the Ravenscleiff Company up from the beginning, and held 1300 or 1400 shares, and, independent of the Yorke Peninsula, he did not intend to let the Ravenscleiff fail. He thought, as a shareholder in both, that was a fair business offer.

Mr. G. FRITCHARD thought that they should raise the money amongst themselves for carrying on the mine.—The CHAIRMAN said that there were other means open to them for raising the money than those proposed. Mr. OTTLEY said that at the last meeting there was a committee of shareholders appointed to consult with the directors, and the directors had conferred every means in their power, with the assistance of that committee, to raise the money for carrying on the mine, and they were unable to do so. The directors, to a certain extent, had made themselves personally liable, and were now creditors for money they had advanced out of their own pockets.

Mr. RAIT moved that the remuneration to the liquidators be 102s. each.—Mr. ALEXANDER STRACHAN seconded the motion.

Mr. TURNER said that he was unwilling to undertake the liquidation unless there were some guarantee of the expenses. Mr. Grainger and himself had worked for this company gratuitously for a number of years, and to put him he did not feel inclined to incur the expenses of the liquidation, and to take the hand into his pocket for the necessary expenditure which the liquidators would have to defray.

Mr. RAIT said that personally he should be glad to guarantee the sum of £100 towards the expenses of liquidation. Mr. Kearton, Mr. Smith, the Chairman, Mr. Darlington, and Mr. Ottley having given a like guarantee, the liquidators expressed themselves as willing to do what was required, and to continue to do so for the best interests of the company and for the benefit of all parties. The CHAIRMAN suggested that any other gentlemen who wished to contribute should send their names into the company. He also stated that any shareholders desiring to see the agreement and form of debenture could do so by calling at the office of the company.

The proceedings then terminated.



MANCHESTER.—Messrs. JOSEPH R. and W. P. BAINES, stock and share brokers, Queen's Chambers, Market-street, write under date March 12:—In reviewing a period in which the tendency of prices in stocks and shares is very decided, the task of reporting a market is a very simple one, far more so than when changes are contradictory and the rise and fall nearly balancing each other, for then it is not always easy to assess what alterations are merely the result of conditions peculiar to the stock or stocks acted upon, and what are in consequence of leaning of market in either direction. The past week is an illustration of the first remark, the course of the market having been on balance all one way, and that downward. There have been fluctuations certainly where some clearing influence has for a time given cause for a slight rally here and there, but these have been followed by fresh decline and in most cases closing prices still evening, with few exceptions, are lowest, or very little above lowest touched. The cause of all is, of course, the anxiety respecting the

Copper ores for sale on Thursday next at the Royal Hotel, Truro.—Mines and parcels.—Devon Great Consols 806—South Caradon 335—Holmush 218—Bedford United 186—Gunnislake 148—Glasgow Caradon 80—Marke Valley 35—East Caradon 15.—Total, 1823 tons.

**THE VENEZUELA PANAMA GOLD MINE.**—A telegram gives the result of working for the month ended Feb. 19 as follows:—Yield 3025 ozs. of gold from 2250 tons of quartz crushed in 26 days.



## Mining Correspondence.

## BRITISH MINES

**BEDFORD UNITED.**—H. Trezise, March 10: We have not taken down and lode in the 133 east; the driving is being continued by the side of the lode. The shaftmen are continuing to make fair progress in sinking. The water is being drained from the upper levels, which proves the very porous nature of the lode. The lode in the 75 east is strong and masterly in appearance, composed of strong capel, mundie, and ore. In the 75 west we have a full pair of six men, and good progress is being made; the lode is composed of capel and mundie, intermixed with a little ore. In the 62 east the lode is the full size of the end, and of a promising character, worth 51 per fathom. Nos. 1, 2, and 3, in the back of the 62 east, are worth on an average 51 per fathom each. In the 52 west the lode is promising, and the ground is very congenial for the production of copper ore. Two stopes behind the end are worth 41 per fathom each. In the 42 east the lode is longer, and spotted with yellow ore of good quality. The several tribute pitches throughout the mine continue just as they have been. Good progress is being made throughout the mine.

**CARN CAMBORNE.**—W. C. Vivian, March 12: There is scarcely any change to notice since my last, the only thing calling for remark being a slight increase in the water in the 105 level, as we are getting nearer to the cross-course.

**CASHWELL.**—John Peart, March 7: The vein in heading, coming east on copper lode in the 105 level, on the top part, but, near the drift roof it is not so rich as it has been, and very hard; is worth 20 cwt. of lead ore per fm. The drift on copper lode going west is improving, there is more ore and a better vein; we save all the vein stuff for use. The drift in flat top of copper lode going east is without change. The rise in slaty lode east end is not looking so well at the top; not so much vein and less ore. I think we are up to the top of this sill into the thrown down check of the limestone above. We will now start a heading from the rise.

**CATHEDRAL CONSOLS.**—S. Davey, March 5: The south lode at the 84 east and west of cross-cut still looks encouraging, and maintains its size and character. The lode in the same level driving east of engine-shaft is 3 ft. wide, and spotted with mundie and copper throughout. The winze sinking below the 72 has taken a change, is 2½ ft. wide; the gossan is not so large, composed chiefly of quartz, mixed with yellow copper. Since my last report our progress with the driving of the bottom levels has not been as formerly in consequence of the water having increased at the bottom of the mine, and the pitwork being small at this place, and having only one boiler, we have great difficulty in steaming the engine fast enough to keep it going. Should this weather continue I expect it will decrease in a few days. We intend cleansing the flues of the boiler on Saturday to see if that will enable us to work faster.

**CREIGIOG.**—H. Hotchkiss, March 10: There is no change to report on from the mine to-day. The lode in both ends which is being driven at the 130 maintains its size and character, as I last informed you.

**DERESBY.**—J. Roberts, W. Sandoe, March 11: The lode in the south end of the shaft is an improving appearance. We cut into a large vein last night which was pretty well filled with cubes of lead, which is generally the forerunner of better lead. The lode in the north end is also improving, and looking very well, especially towards the north end of them, where the lode-bearing part of the lode is from 8 to 10 ft., and has lead throughout it. The intermediate piece of ground towards the bottom is looking rather better, and we anticipate the next stop will produce more lead than the present one.

**DEVON GREAT CONSOLS.**—Isaac Richards, March 12: Wheel Maria: In the eastern shaft sinking below adit on Capel Tor lode, the lode is 3 ft. wide, maintaining its general promising character, and yielding small quantities of copper and mundie ore. Wheel Emma, Railway Shaft, New South Lode: In the 210 west on the south side of the lode the lode is 3½ ft. wide, and contains a little stone of copper and mundie ore. Watson's: In the engine shaft sinking below the 112 the ground continues of a congenial character for the production of mineral. In the 112 east and west of the engine shaft the drivages have been carried by the side of the lode during the past week for more speedy progress. Since the communication of Butter's winze in the back of the 32 east of the western shaft with the midway shaft below the 30, the sinking of this (the midway shaft) below the 32 has been resumed, the lode in which is of good size (4 ft. wide), of a strong masterly character, and is yielding a little good quality copper and mundie ore. All the other points of operation throughout the mine are without important alteration.

**DRAKEWALLS UNITED.**—T. Gregory, March 12: We have the water in fork to the bottom of the engine-shaft, and the men are sinking. The lode and branches continue worth 121 per fathom, with more branches on the north. In the 50 east the branches are producing good stamp work, and the branches in the winze sinking below the 60 are worth 81 per fathom. No. 1, North Lode: In the 50 east and west on course of this lode we have been some good tin work during the past week; the prospects here are encouraging. In driving west on the lode the lode is improved, is 1½ ft. wide, and contains the old or main tin branches at a point near the great western cross-course of this mine. We have always regarded this as of great importance for further discoveries, therefore we propose starting a new cross-course north from the old workings of the western end of the mine, where we expect to meet with good deposits of mineral.

**EAST BLUE HILLS.**—S. Bennetts, W. K. Mitchell, March 11: There is not much change to report in the sinking of the engine-shaft below the 10; the water, however, is somewhat less, the lode is higher, promising, and worth fully 121 per fathom. In the 10 east the lode is improved, is 1½ ft. wide, and worth 51 per fathom. The stopes at this level are worth respectively 71, and 81 per fathom. The lode in the adit east end also shows indications of improvement, and is worth 71 per fathom.

**EAST CARADON.**—W. George, J. Kellow, March 11: During the past month the adit has been driven as a side tie, with the view of letting down the water to the north of Seccombe's shaft 7 ft. 3 in. In consequence of heavy rains we have had the water has risen in the north shaft full 12 ins.—about its usual height—and having now got into a run of decomposed granite, we do not consider it safe to continue the drive further at present, or while there is such a pressure of water against us. We have, therefore, suspended the driving, and put the men to secure the collar of shaft and assist in a few other necessary repairs to engine and pitwork before it can be got to work; the cost of this will not be great. We have one tribute pitch at work, from which we have sampled this week 15 tons of good quality ore.

**EAST WHEEL ROSE.**—W. Skewis, T. Dudge, March 9: We have dropped the 10-in. lift to the 120, and the water is drained to this point. The sides of the shaft for the last 10 fms. are in a fair state of repair, only requiring a little being done to them, which the shaftmen are now about. When this is completed we shall cut ground for bearer-holes and fix the bearers and drop-lift to the 130. Baynard's Shaft: The communication referred to in our last report at the 90 is made with Penrose's shaft on east part of Middleton's lode. This has thoroughly ventilated the mine at this depth. These men are now engaged at the 90 in driving a cross-cut west to intersect the western part of Middleton's lode, which we found at the 60—the point where the old people put out a cross-cut to be about 17 fms.; but by keeping the cross-cut now being driven in a more direct line to the lode we hope to intersect it by driving less ground. North Wheel Rose: Ground is being cut for bearer-holes at the 120, and the lift is being prepared to drop to the 130, which is the bottom of the downrout, and where our next plunger-lift will have to be fixed. Below this point the pitwork will be fixed in the underlie shaft, when we hope quickly to reach the bottom of the mine. All surface operations are going on satisfactorily, and the machinery working well.

**GAWTON.**—G. Rowe, March 9: In the 117 east the lode is carried 5 ft. wide, chiefly composed of capel and spar, yielding good quality arsenical mundie, and a little copper ore. The stopes in the back of the 117 east are yielding 7 tons of mundie and copper per fathom. The lode in the back of the 105 east will yield 8 tons of mundie per fathom. The lode in the stopes in the bottom of the 95 east will yield 9 tons of arsenical mundie per fathom. Stopes in the back of this level will yield 7 tons of mundie per fathom. The stopes in the back of the 70 east will yield 9 tons mundie per fathom. The lode in the stopes in the bottom of the 70 west of shaft will yield 8 tons of arsenical mundie per fathom.

**GLASGOW CARADON CONSOLS.**—Wm. Taylor, Wm. J. Taylor, March 10: South Lode: There is no change in the 125 east of lode. Of the same value as last reported; worth 81 per fathom. North Lode: The 114 east is worth 141 per fathom. A rise in the back of the 117 east is worth 181 per fathom. The stopes in the back of this level are worth 101, 121, and 141 per fathom respectively. This new lode is opening out very well indeed, and likely to turn out large quantities of ore. We sampled yesterday for one month 95 tons of ore of good quality. We intend to sample monthly in future, and shall in all probability considerably increase our returns.

**GOODVEERE.**—R. Knott, March 11: The ground in the deep adit end east has been a little stiffer during the past week, consequently our progress has not been quite so good. Water flows more freely from the lode, which is presenting a lively appearance for improvement.

**GREAT HOLWAY.**—W. F. Harris, March 12: Roskell's Shaft: In the 95 north the ground is favourable for progress, and the branch upon the lying side yields some beautiful stones of lead in most original character of rock. Level Engine Shaft: Tribute: The 80 east pitch in back is producing 10 cwt. lead and 1 ton blende per fathom. No. 2 in back is yielding 10 cwt. lead and 1 ton blende per fathom. In the 60, No. 1 pitch in back west is worth 15 cwt. lead and 25 cwt. blende per fathom. No. 2 pitch continues to look well, and yielding 3 tons lead and 1½ ton blende per fathom. No. 3 pitch in bottom east is producing 5 cwt. lead and 1½ ton blende per fathom. No. 4 pitch in bottom east is worth 10 cwt. lead and 1½ ton blende per fathom. No. 5 pitch in back west is producing 15 cwt. lead and 2 tons blende per fathom. No. 6 pitch in back is worth 10 cwt. lead and 1½ ton blende per fathom. Nos. 9 and 10 pitches in back are producing together 1½ ton lead and 3 tons blende per fathom. Office Shaft: In the 80 west No. 1 pitch is worth 10 cwt. lead and 1 ton blende per fathom. No. 2 pitch in back is worth 5 cwt. lead and 1½ ton blende per fathom. Bramcock Shaft: In the 80 east No. 1 pitch in back is producing 12 cwt. lead and 1½ ton blende per fathom. No. 2 pitch is worth 5 cwt. lead and 1 ton blende per fathom. Dressing and surface work progressing with usual regularity.

**GREAT LAXEY.**—W. H. Boze, March 11: The 271 driving has latterly been upon a branch of the lode bearing more to the east than the usual course, and recent dialling shows the main part to be standing to the west. We have, therefore, commenced to cross-cut in that direction, and expect to reach it in a few yards. The 250 east is passing through a diorite of run of ground, and nearing a point where the lode forms into two distinct branches. We must see that the level is driven upon the eastern one, as was done in the level above. The 247 is not yet clear of the slide ground, and the lode still unsettled. The winze in this level is worth 81 per fathom. Two roof stopes 121 and 151 per fathom. The 235 and south is at present unproductive. The 220 slope is still worth 3 1/2 per fathom. The new rise in the 145 north has improved to 221 per fathom, the working on flat branch 121 per fathom, the roof stopes 121 per fathom. Durnell's: Until the 247 has fully drained the ground we have put in a temporary dam to prevent the water issuing from the lode entering the shaft at the 243 fm. level. There is no pressure, and we hope it will answer the purpose well. I am glad to be able to report an improvement in the 243 and north, which is worth fully 101 per fathom. Two roof stopes and a rise in this level are respectively worth 101, 201, and 151 per fathom. In the 235 three roof stopes and the rise are worth 141, 81, 201, and 241 per fathom respectively. The 15 east has latterly improved, and now worth 151 per fathom. The winze in this level is holed to the stopes in roof of level below, and we can now work this ground to greater advantage. The stopes over the 215 and 203 have declined in

value, as well as those in the 85 roof. The 60 rise is also not so good at present—181 per fathom; but we are meeting with ore sooner than expected in the 37 end driving north, where the lode is now strong and healthy-looking, and worth 121 per fathom.

**GREEN HURTH.**—Jas. Polglase, March 5: The bottom end north is worth 2½ tons of one per fathom. The south end is suspended. The 44 end is without change. No. 1 stopes in worth 1 tons per fathom. No. 2 stopes is worth 4 tons per fathom. The 30 end north has been rather poor during the week, but not without ore. The drifts north and south of rise in back of trial level are producing in the aggregate 2½ tons per fathom. We are opening good ground in this direction. The trial drift is being continued from the rise in back of the 30 with good prospects. No. 4 vein, in adit level east, has produced excellent lumps of ore during the week, a large kindly vein. The severe weather hinders our dressing, but not our mining operations.

**HEALEYFIELD.**—J. Trelease, March 6: We are pushing on the north end under Grindstone Hill with all possible speed, and I am very pleased to inform you that the end to-day is gradually improving for lead ore, and is now producing saving work for the crusher. The end is driven 40 fms. from the Whitwell shaft, and is now getting back under the productive ground that has been stopped away in the sills above, and if the vein should prove as rich in the present Grindstone Hill as found hitherto in the sills above, it will greatly increase the value of this part of the mine. No one can tell what is hidden underground, but I have sent sample for the other parcel of ore. We are busy carting No. 1 parcel. The severe weather rather hinders our dressing operations.

**KILLIFRETH.**—John Mitchell, Joseph Tamblin, March 11: There is no change in any of our bargains calling for any special remarks since last reported on, with the exception of the 70 end, west of cross-course, where the lode is now worth 151 per fathom.

**KIP HILL GREAT CONSOLS.**—Isaac Richards, March 12: In the 110 west at north engine-shaft, the lode part carrying about 1½ ft. wide, is composed principally of capel and quartz. In the 110 east the lode is from 4 to 5 ft. wide, of a very fine character, and yielding a little tin in the 110 east.

**MELLANEAR.**—Capt. Harris and Tom, March 11: The ground in the 19 cross-cut, driving north of the main lode, east of Gundry's shaft, is still full of small veins of spar and sulphurous mundie, and looking very congenial for copper ore. The lode in the 110, driving west of Gundry's shaft, is 4½ ft. wide, and yielding ½ ton of copper ore per fathom, and looking more promising. The lode in the rise in the back of the 110 east of cross-course, east of shaft, is without change. The lode in the rise sinking in the bottom of the 110, east of shaft, is 4 ft. wide, and yielding 1½ ton of ore per fathom, and some saving work for sulphuric acid.

In the 120, east of shaft, the lode is 4 ft. wide, yielding 1 ton of ore per fathom and occasional stones of tin. In the 120, west of shaft, the lode is 3½ ft. wide, and yielding 1½ ton of ore per fathom. In the 130, west of shaft, the men are still employed in cutting through the lode in the south side of the level to ascertain its value, and as far as seen, it is yielding stones of copper ore and saving work for tin, but hard and spare for progress. In the 130, east of shaft, the lode is 4 ft. wide, and yielding 1 ton of ore per fathom, and letting out an inconsiderable quantity of water. Our sampling on Tuesday next will be about 500 tons of copper ore.

**MID-DEVON.**—James Neill, March 7: "A" shaft sunk by 12 men with rock-drills and by hand labour, 2 ft. 1 in.; total distance below 80 plat, 4 fms. 9 in. There is no change in the character of the strata since last report, which calls for remark. It now takes five revolutions of the wheel per minute to cope with influx of water to shaft, but the machinery works smoothly and effectively, both underground and at surface.

**MOUNTS BAY CONSOLS.**—W. Argall, T. Job, March 7: The lode in the 20 east is still letting out a good deal of water, and produces stones of tin and copper. We have still 10 men working, from which we are getting tin in close quantities of tin. Our machinery is working well, and we have commenced to stamp our next monthly parcel of tin.

**NEW CARADON.**—N. Richards, March 7: Setting Report: To sink the engine-shaft as directed, and timber the same, by nine men, 2 fms. or the month; also 61 all the stuff sent to surface, at 141 per fm.

**NEW LANGFORD.**—T. Gregory, March 11: The lode in the 10, west of engine-shaft, is 3½ ft. wide, chiefly silver mundie and a little blende, a very fine-looking lode. In the 30, west of engine-shaft, the lode is large (3 ft. of which is blende), and a little, and a little, and a little copper ore. We are putting out a trial drift at the 20 near Malachi's shaft, where we have a good branch of silver-lead together with a little saving work for silver ore. We shall continue this for proof of the lode in this part of the mine, which just now is very promising.

**NEW TERRAS.**—Richd. Eade, March 12: Since my last report the lode at the bottom end of the engine-shaft has very considerably increased, and is close upon 2 ft. 6 in. wide. It is rich in tin, I am pleased to say. No alteration to note in the great stopes. The sinking of the engine-shaft is progressing satisfactorily, and we find good ground both for sinking and the production of tin. We have commenced to clear out the ground for the foundation for the new stamps engine-house.

**NEW WEST CARADON.**—N. Richards, March 11: No. 5 lode west has been taken down; it is now about 1 ft. wide, spotted with copper ore. There is no change to notice in the cross-cut driving south at this level.

**NORTH GREEN HURTH.**—Jas. Polglase, March 5: The vein in the south end is small, and the sills which were dipping have again assumed their regular appearance. The rise in the vein in the level east looks very promising. Nothing new in the cross-cut.

**OWEN VEAN AND TREGURTHA DOWNS.**—W. Derry, H. Prin, V. James, March 12: The 67 cross-cut north has just entered an elvan, which is at present letting out a large quantity of water. Up to this time the middle lode has not been intersected below the 50. We are cutting down the sides of the 50 level, and preparing to drive it both east and west. All other operations are proceeding as usual, and our machinery working well.

**PAR TIN.**—Thomas Parkyn, March 12: Since my last report we have cut into some fine-looking lode, and the ground in the cross-cut is much improved for driving, and the men are working in the cross-cut, and the water is not all gone to the engine-shaft, or I should say under it, and as the water is not all gone from the shaft I shall commence to rise from the back of the cross-cut to hole to the bottom of the shaft. The air is very good, and we have splendid dry fine weather. I am going to open the old Mount copper lode. This lode paid in dividends in Old Mount Mine thousands of pounds, and it runs right through our property, and as this is one of the Champion lodes of the district there is no reason why it should not be equally productive in Par Mine as in Old Mount Mine, which was immediately east of it. You will remember we opened this lode in making the new road to the engine-shaft.

The Old Par Consols main lode in the deep adit is yielding large rocks of tin, the richest I have ever seen in the mine. The lode in the winze is 11 ft. wide, producing extraordinary rich tin. Assays made by independent mine agents yielded over 1 cwt. of tin per ton of lode-stuff. I will venture to say that no other such rich lode can be found again in Cornwall at the same depth, and seeing Par Mine is surrounded with mines that have paid millions in dividends, and you have the same lode passing through it, I feel confident that when they are all tried like success will be attained.

**PENEGARRE.**—Joe Evans, March 11: I am happy to inform you that the new lode continues in good order, carrying good lead, and the water is very strong. The new lode south is looking better than we have seen it before. The spots of ore are larger, the water has increased, and the ground is very hard.

**POLCREBO.**—W. H. Martin, J. Richards, March 11: Highburrow Shaft: A hard floor of ground came in from the north: in this floor the lode is not so productive for tin, but we expect it will resume its value beneath the floor. The men that were in the 40 east are driving the 50 east. The 50 west is showing better indications for producing tin. Next week we will send you our monthly report.

**PRINCE OF WALES.**—S. Roberts, March 10: We continue to make very good progress in sinking the engine-shaft below the 102. The apparent nature of the ground is all that can be desired in which to find the lode productive, being a beautiful and congenial killas, with tin veins and joints. We look on this as a favourable indication. In the 45 west there has been nothing done on the lode since last week, but the men have to-day made the necessary preparations to commence on it to-morrow, and if it continues so productive as when last taken in (as we see no reason yet to doubt it) they will have a very nice parcel of rich copper ore in the bottom of the 45 west. It is not so good for copper ore, but better for tin. For both tin and copper it is a fair wages place to the tributors. We have no change worthy of notice in other points in operation.

**ROMAN GRAVELS.**—Arthur Waters and Son, March 12: I have just come in from the mine, and beg to say that there is no change worthy of remark in any of the points since our last full report. Samples of another 100 tons of lead ore, for sale next week, go out to-night.

**RUSSELL UNITED.**—John Bray, March 12: The lode in the 57 at Stephen's engine-shaft is full 9 ft. wide, producing good tin work throughout, and from the assays referred to in my former reports the lode is worth for tin and arsenic full 121 per fathom. I look on this as a good discovery. Our shaft is sunk in virgin ground, and having hundreds of fathoms east and west unexplored, with a full supply of water power, is to the property a great advantage for working. I am sorry to say in this last week the main rope working the line of rods at Stephen's shaft gave way which we are busy replacing with 2 in. iron rods. We hope to get it complete and the wheel in work to-morrow (Friday). Nothing new to report at Matthew's shaft, as the men have been engaged laying down the rods at Stephen's. We hope to get the water out of Stephen's shaft next week.

**SOUTH CONDUROW.**—Wm. Rich, Wm. Williams, H. King, March 11: The lode in the 54, west of Marshall's shaft, has a promising appearance, and is worth 71 per fathom for tin. The lode in the 66 and west carries good stones of copper and a little tin. The 93 end west is beyond the cross-course. The lode is opening out wider, but being still in the elvan it is unproductive. The 33 east of King's shaft is worth 101 per fathom. The 30 end east is worth 81 per fathom. We have set to rise in the back of this level to prove the lode and for ventilation. The lode in the rise is worth 31 per fathom. The lode in the back of the 80 west is worth 101 per fathom. The driving of the 70 end east is suspended for the time, and the men set to sink a winze below this level. The lode in the winze is worth 101 per fathom. The stopes in the back of this level is worth 101 per fathom. The 60 east is worth 81 per fathom. Two stopes in the back of this level are worth 81, and 101 per fathom respectively. The 50 end east is worth 81 per fathom. The winze below this level is worth 81 per fm. Two stopes in the back are worth 91 per fathom each. The 40 end east is worth 71 per fathom. The stopes in the back of the 40 east is worth 101 per fathom; the stopes in the 40 west is worth 81 per fathom. The 30 west has been extended a great distance, mostly in virgin ground. We have now suspended the drivage, and have put the men to sink a winze in the bottom of the 40, east of engine-shaft. The stopes in the back of the 20 west is suspended for the time.

**SOUTH DAREEN.**—John Mitchell, March 12: The 130 end east is in a strong lode, very hard for driving, and worth 1 ton silver-lead ore per fathom. In the same level driving west, we have cut the cross-course met with in the upper levels, this as will be expected, has cut out the lode in the meantime, but

probably we shall find it in a few fathoms driving. We have had good and behind this cross-course in some of the higher levels, and here it is stronger and looks more kindly for ore than anywhere I have seen it before. It is 2½ ft. wide, composed of spar and quartz with a mixture of copper ore, in a matrix of kindly-looking killas, running north-east and south-west. The two stopes in the 130 east are worth together 4 tons silver-lead ore per fathom. The winze in the 120 east is worth 13 cwt. of silver-lead ore per fathom. The ground here is much like what it is in the level below. No. 1 stopes in this level is worth 15 cwt. of lead per fathom, with a good mixture of copper.

**SOUTH PENSTRUTHAL.**—T. Davey, March 12: Walton's Engine-Shaft: There is no change to notice in the driving of the 126 fm. level, west of the shaft. We have cut hitches, and put in dam in the 126 fm. cross-cut to prevent any water going from here to the deeper part of the mine.—Flat Rod Shaft: We are gradually getting the better of the water here, as we have now forced 2 ft. below the back of the 150 fm. level. After this level is drained, we shall again for much quicker sink will be only the shaft to draw from. We are making every effort to do the work with the least delay.

**SOUTH TOLCARNE.**—March 11: The 80 west, on Fraser's lode, continues to open up good tribute ground, worth about 51 per fathom. The 70 west in the new western ground is promising, the lode is larger and worth 81 per fathom. The 60 fathom level west in the western ground is looking fairly well, worth 51 per fathom. Taylor's bottom is worth 41 per fathom.—Gossan Lode: In the 45 fathom level east there is a strong masterly lode 3½ ft. wide, and 180 cwt. of copper ore per fathom. The footwall part is increasing in width, and in the 36 cross-cut south we have intersected a branch of a kindly appearance, and judging from a little water issuing from the present end, we think we must be nearing Fraser's lode. The 36 east on the new tin branch is about the same in value as when last reported; worth about 81 per fathom. Flat Lode: The 70 east has every appearance of the production of tin soon, and no doubt large bodies of tin will be met with in this direction. The pitches on the whole are looking better.

**STANDARD LEAD.**—W. H. Borlase, March 12: The lode in the engine-shaft is exceedingly promising, being composed of crystalline, spar, sulphur, blende, and lead, with some spots of copper. The footwall part is increasing in width, as we go deeper, and about 3 ft. from it, is a branch about 1 ft. wide, producing good stones of lead and blende, the intervening rock also carrying strings of lead and blende. I should say by sinking the shaft 2 fms. more these parts will conjoin, and without doubt will become lead-producing in paying quantities.—New Shaft: The 33 plat is complete, and we are now stripping down the winze to size of shaft, which is progressing satisfactorily considering the force of the lode. The stopes in the back of the 23, south of new shaft, is producing 30 cwt. of lead and blende per fathom. No other change to notice throughout the mine.

**TREVAUNANT.**—J. Frisk, W. Edwards, March 9: Engine Shaft: The mine is drained throughout to the 140, and in a day or two we shall commence cutting ground for bearers, which we have to fix to assist in carrying the drop lift previous to its being sent to the 146, which is the next working level. The shaft is in good condition, but nearly full of old timber and debris which has made the dropping very difficult, but we are pleased to say we are making good progress in clearing it, and every effort is being made to drop again as soon as possible.—Cunnack's Shaft: In the 24, east of shaft, the lode is nearly through the ground disordered by the cross-course, and in a few days we intend cutting south for the purpose of finding the main part of the lode, where we expect a good improvement.—Wheel Boy's Shaft: We have no change in the tribute pitches calling for remark. We are drawing and stamping for the next sale of tin. The 90-in. engine and all other machinery are working well and in excellent condition.

**TREVAUNANT UNITED.**—Wm. Vivian, March 12: The erection of the engine and all the other surface work is being pushed on with all speed. So change to notice in our underground operations since last report.—VAN.—W. H. Williams, March 12: Edward's shaft is down to-day to the 125; the sinkers have sunk in the past week 11 ft., which I call very good work. The 135 cross-cut is driven 53 ft. with indications the same as last reported. Its change in the stopes. Dressing is proceeding regularly. I have only just come in from Edwards's shaft, where I have been all the afternoon pushing the work.

**WEARDALE.**—James Benkiron, March 3: Killhope: The new sinking is down 3 fms.; we have reached the bottom of the great limestone. We are now in the 130, which is about 9 ft. thick. When we reach quarry level we expect good ore, the lead or blende we have been looking for, and will be in the bottom of limestone. Hand-pump still well master of water. We have decided to fix hydraulic engine, and are preparing for same.—Middle Grove Cross-cut: Poor progress made; we shall arrange for a new partnership at quarter end. Burnhope level has been driven last 2 fms. 5 ft. (total, 37½ fms.); end all plate, vein still in two branches, now 2 ft. apart; they are getting nearer westward, and will most likely be together in sill below.

—Grove Rake: Peart's, or new rise above Wallace level, hopper made good, and made rise 1 fm. into whole or new ground. We have a kindly vein 4 ft. wide of floor spar, worth 18 cwt. per fathom, looking promising, and will doubt open out some good stoping ground. The tribute pitches are looking promising. Bolt's Burn limestone drifts, east and west, are without change. Coal sill drift, Bolt's slope vein, 3½ ft. wide; worth 30 cwt. of ore per fathom.—Greenlaws: The tribute pitches are not much changed from last week; worth from 14 to 35 cwt. of ore per fathom.—Burtree Pasture, Donaldson's Level: The end in this vein is looking better; vein 3½ ft. wide, about 2 ft. of this rich floor-spar nicely mixed with ore; worth 10 cwt. per fathom. The tribute pitches are without change, yielding the usual quantities of ore; some of the lengths working out fast. The Nattrass Gill drift ought now to be pushed forward to open out more stoping ground.

**WEST BASSET.**—J. Nicholas, F. Hodge, March 11: In the 135 end, west of Grenville's, we have met with a branch which has thrown down the lode and we are now driving to intersect the same. Two stopes at the 144 are each worth 91 per fathom, and a stopes in bottom of 124 is worth 121 per fathom. The stopes in the 114 is worth 101 per fathom. The lode in the 174, driving east of shaft, is improving in size, and is yielding low price stuff. The lode in the 180 west of Percy's is worth 101 per fathom, and one stopes in back of this level and one in bottom of 180 are each worth 111 per fathom, and one stopes in back of this level to the east of shaft is worth 121 per fathom. A stopes in bottom of the 170 west is worth 91 per fathom. The stopes in back of 130 east of shaft is worth 121 per fathom. One stopes in back of 14 west is worth 81 per fathom, and one in bottom 91 per fathom. The lode in the 124 east of old skip is worth 71 per fm. The lode in the 164 east of Thomas's is in a tight bar of ground, which we expect to get through shortly. Two stopes in back of this level are worth respectively 71, and 81 per fm. We are nearing the lode in the cross-cut at the 181 west of Percy's, where the ground is highly mineralized. The lode in the 54 east is worth 51 per fm., and two stopes in back of this level are each worth 51 per fm. The lode in back of 85 east of North Frances is worth 81 per fm. The lode in the 70 east of shaft is yielding saving work for tin, worth 61 per fm. The lode in the 70 east is worth 61 per fm. We have cut into the lode in the cross-cut driving north at this level, where it presents a good appearance and there is a good prospect of laying open a productive piece of tin ground at this point. The stopes in back of 65 east is worth 91 per fm. The lode in the 30 east of Flat-rod shaft is yielding low price stuff. A stopes in back of this level is worth 91 per fm. The lode in the winze sinking below the 20 is worth 51 per fm. Gilpin's lode in the 33 is about 18 inches wide, producing saving work for copper ore. Since my last report the 38 on No. 51 lode in New West Caradon has reached the western boundary of this set and this level is now taken up by West Caradon and is being driven east by four men. The lode is 2 ft. wide, producing about half a ton of good copper ore per fathom.

**WEST GOSDOLPHIN.**—T. Hodge, F. Hodge, March 9: Caunter Lode: The 32 end south-east towards Pink Lode is in a hard and twisty character of ground, which is making our progress in driving slow; we hope shortly to get through it. We may mention that the lode is about 3 fms. below the present forebrest, and that we are driving on the western part in order to cut down the water to resume sinking the winze above; when this is accomplished, and Pink Lode cut west, we purpose to prove the eastern part now accumulated, the value of which is not known, and also Pink Lode of junction.—Bullington's Lode: In the 70 east end the forebrest is advanced about 4 ft. east of point of cutting through the lode, and taking by computation the lode all squared up to the end would be 10 ft. wide. From the extreme appearance for the time the lode is lessening, and the peach of a more favourable appearance for some time, and in producing occasionally some good work for tin.

**WEST CARADON.**—N. Richards, March 11: Gilpin's lode in the 33 is about 18 inches wide, producing saving work for copper ore. Since my last report the 38 on No. 51 lode in New West Caradon has reached the western boundary of this set and this level is now taken up by West Caradon and is being driven east by four men. The lode is 2 ft. wide, producing about half a ton of good copper ore per fathom.

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**SPECIAL LATHE FOR STUDS AND CRANK PINS.**—A special designed lathe for work of the above class, with the object of dispensing with all forge and anvil work in turning out studs and crank pins, has just been completed by Messrs. J. Spencer and Co. of Hollinwood, near Manchester, for the works of Messrs. Buckle and Taylor, of Oldham. This tool may be described as a 12 in. centre, hollow spindle capstan rest lathe, which is probably the largest size of this class of tool that has been made, and is adapted for turning all kinds of studs, small crank, or any description of pins, out of the solid bar up to 4 inches diameter. The construction of the lathe may be described as follows.—The head stock is double geared, with a  $\frac{1}{4}$  in. hole right through the spindle, and a cone chuck at each end of the spindle to secure the bars, which can be operated upon by five separate tools of various forms for different kinds of work, such as roughing out, finishing, squaring, cornering, pointing, or ending, without any forging or smith work on the bar being required, and the studs are finished one setting without loss of time for changing or re-setting tools. A screwing apparatus is also attached which will screw up to  $2\frac{1}{2}$  in. Whitworth threads, and this can be ran along the slide so as to work out of the way of the capstan rest when turning. The lathe is fitted with a loose head, so that it can be used as a general tool for doing work between centres when required.



### The Mining Market: Prices of Metals, Ores, &c.

IRON.—On the whole, this market has remained fairly steady, but the better feeling noticed last week has not continued, and warrants have changed hands at lower rates, whilst in other descriptions there is little alteration to record. The recent improvement in Scotch pigs has been entirely lost, and, therefore, the movement cannot be regarded as otherwise than speculative. It is, however, a matter of comment that while political affairs were the cause of the late advance, political complications have also been the cause of the present fall. It was first thought that increased military requirements would give an impetus to the iron trade, but the declaration of the late war, and the fact that such increased enquiry is not likely to prove permanent, and as our political difficulties in all parts of the world may tend to contract trade, we have at once the reason of the reaction in prices this week.

As has been already shown, it is Scotch pigs that have shewn the principal fall, and as they form the great medium for speculation the declension of price is due to the movements of operators. This statement does not contradict our foregoing remarks, for political events have regulated them in the course they have adopted; but speculation has existed in both the up and down movements. Had the market been regulated by legitimate and ordinary features the advance could never have been effected. There was nothing whatever to warrant it, and at the present time only two points are to be noted, the first was features of the most adverse character, and that there could have been removed before any permanency to any advance could be secured. Since the present month began the statistical position of the market has not improved; but as far as can be gathered stocks have further swollen slightly, and as regards Scotch shipments they are still decidedly unfavourable.

and, having hundreds of fathoms east and west unexplored. LEAD Mines continue neglected, and prices are merely nominal. It will be seen that three foreign lead mines have paid dividends this week, notwithstanding the low price of lead. Vans are quoted 6 to 11-16; the agent writes under date of March 12 that Edward's shaft was down to the 135, making good progress. The indications the 135 were the same as last week. Weardale,  $1\frac{1}{2}$  to  $1\frac{1}{4}$ ; the reports from the different mines of this company are of a satisfactory nature, one or two improvements having taken place. Roman Ravel, 3 to 34; Leadhills, 1 to  $1\frac{1}{4}$ ; D'Eresby,  $\frac{1}{2}$  to  $\frac{3}{4}$ ; Old Shepherds, 4s. to 6s.; East Rose, 4s. to 6s.; Ecton, 1 to  $1\frac{1}{4}$ ; Standard lead, 1 to  $1\frac{1}{4}$ . South Darren, 4s. to 6s.; the 130 east is in a strong ledge, worth 1 ton of silver-lead ore per fathom. The two stopes, in the 130, are worth together 4 tons of silver-lead ore. The sale of 4 tons of lead ore realised this week 308s. 2s. 6d.

The articles in our last two issues on Hydraulic Mining in California were from the pen of Mr. George O'Brien.

**THE BANKRUPTCY ACT.**—On Thursday a deputation, representing the Yorkshire Woollen Home Trade Association, had an interview with Mr. Holms, M.P., Sir Thomas Farrer, Mr. Smith (Chief Official Receiver), and Mr. Giffen, at the Board of Trade, to propose certain alterations in the Bankruptcy Act of 1883. The deputation urged that official receivers should be remunerated by fixed salaries and not by percentage; that more latitude should be given to creditors in accepting an intended offer of composition; and that the restriction on creditors as to the use of proxies should be abolished. Mr. Holms, in reply, said that they were quite alive to many of the objections which had been made; and he thanked the deputation for the very valuable information they had imparted. It was only fair to say that the mode of remuneration of official receivers was under consideration, as were also the fees to solicitors as to improve their charges without admitting any of the evil



which existed under the old system; in fact, the question of fees generally was under consideration by the Board of Trade.

THE NOVEL MOVEMENT IN THE NUT AND BOLT TRADE.

On Tuesday a meeting of nut and bolt makers was held at the Royal Exchange, Darlaston Green, for the purpose of considering the position of affairs in the trade, owing to a Darlaston employer declining to join the Masters' Association, and his workpeople, about 25 in number, refused to join the men's association. Mr. J. Wood occupied the chair.—Mr. Juggins stated that he had to meet the employers in Birmingham that afternoon, to state what should be done in regard to the firm and workpeople who still held aloof. The employers stated that if these men could be brought out, and kept out until the firm joined the association they would not enforce the reduction of 10 per cent.; and was it at all reasonable that these 25 men should dictate the terms upon which thousands of men should work? The employer had issued a letter, in which he said that he had paid the list prices, and accused him (Mr. Juggins) of being an employer, but these statements were not correct. Mr. Juggins complained that the employer in question, by representing that he feared violence to himself or men, should have caused the police to be brought down and posted outside the works. If the members of the association had been disposed to use violence they could have done so long since. The question was, however, what should be done in this case? In another week or fortnight the whole trade would be thrown into confusion if these men did not come out; but so far they would not, perhaps because they were deeply in debt to the firm, although they had been offered 20s. a week and 1s. a week for each child, which was far more than they were getting at work. A resolution having been passed to take proceedings against the employer in respect of statements in his letter affecting certain men named by him, another resolution was passed to the effect that the meeting could not, in the strict sense of the term, regard Mr. Juggins as being an employer, and were desirous of expressing in the most emphatic terms their satisfaction at the manner in which he had always fulfilled his trust with reference to the association. Councillor Granger, who next spoke, expressed his sense of the importance of the movement, and said if it could be carried out in the nut and bolt trade it could be carried out with other trades which quite as much required such a combination. (Hear, hear.) He was sorry to hear men who so far had been good members of the society left directly a question arose which intimately affected them; and he urged that the most stringent moral and lawful means should be taken to show how injurious to themselves the position was which they had assumed, and how unfair it was to their fellow workmen and the trade. If the movement failed it would be years before such another opportunity would occur; but if it succeeded it would be the means of effecting a solution of many difficulties in trade matters. The bringing of the police there was something like an Irishman trailing his coat at Donnybrook fair as an invitation to a row. (Laughter and applause.)—Mr. Haddleton (secretary to the Birmingham Trades Council) also expressed his sympathy with the movement.—On the proposition of Mr. E. Taylor, seconded by Mr. W. Jackson, it was agreed unanimously, "That this meeting instructs Mr. Juggins to appeal to the employers, at their meeting to be held at the Queen's Hotel, Birmingham, to-day for a further extension of time before the 10 per cent. reduction is enforced, as the association are still doing their best to get out the men."

A resolution was also passed condemning the action of the employer in obtaining the services of the police.—After some discussion a further resolution was passed, to the effect that the meeting instructed Mr. Juggins to ask the employers to prevail upon Mr. E. Horton, Mr. Keen, and Mr. Harley, with others, to wait upon the employer in question; and requested Mr. Granger and Mr. Haddleton to endeavour to arrange a meeting with the men in that gentleman's employ, with a view of prevailing upon them to adhere to the society and the present movement.

In the afternoon Councillor Granger, Mr. Haddleton, and Mr. Juggins attended the meeting of employers which was being held in the Queen's Hotel, Birmingham. After some conversation it was agreed by the employers present that the consideration of giving notice for a 10 per cent. reduction in wages should be postponed till Thursday, March 19. Hopes were expressed that by that date the few dissenting employers and workmen would have given their adhesion to the proposed scheme of the employers' and workmen's associations, and the necessity for this reduction of wages be thereby avoided.

**LINARES LEAD MINING COMPANY (LIMITED).**—At a meeting of the directors on Thursday a dividend of 3s. 6d. per share, free of income-tax, was declared payable on Saturday, March 28.

**ALAMILLOS COMPANY (LIMITED).**—At a meeting of the directors on Thursday a dividend of 1s. 3d. per share, free of income-tax, was declared payable on Saturday, March 28.

**FORTUNA COMPANY (LIMITED).**—At a meeting of the directors on Thursday it was resolved that a dividend of 2s. 10d. per share, free of income-tax, be declared payable on Saturday, March 28.

QUICKSILVER.

	1884.	1885.
Imports from Jan. 1 to Feb. 28, bottles, about	9,743	about 8,953
Exports	9,293	6,437
Imports for February "	5,126	4,603
Exports	4,911	3,913
Price per bottle, about	£5 10 0	£6 15
Stock in London to Feb. 28, 1885, roughly calculated, is about	75,000 bottles.	London, March 12.

J. BENNETT BROTHERS.

**GOLD AND SILVER.**—Messrs. PILEY and ABELL write under date March 12:—A continental order has absorbed part of the arrivals of gold, but the Bank has received 428,000*l.*, of which 130,000*l.* came from Berlin, in German gold coin, in consequence of the Bank of England raising its buying price by 1*1*/<sub>2</sub> per cent. to 76*1*/<sub>2</sub> s*1*/<sub>2</sub> d. per oz.; the export, however, was stopped by the Bank of Germany in raising its rate of discount to 5 per cent. 10,000*l.* in sovereigns has been taken for transmission to South America. Silver bars have been very steady at 49*1*/<sub>2</sub> per oz. during the week, and at this rate nearly the whole of the arrivals mentioned below have been sold. We have received since our last 70,000*l.* from Chili and 34,000*l.* from New York; total, 104,000*l.* The Peninsula and Oriental steamers have taken 120,000*l.* to India. But few transactions have taken place in Mexican dollars since our last, and until the arrival of the French steamer at St. Nazaire with 110,000*l.*, we are unable to give a quotation. The Finance has taken 63,250*l.* to China and the Straits. The quotations for bullion are—Gold, fine, 77*1*/<sub>2</sub> s*1*/<sub>2</sub> d. per oz. standard; bar gold, containing 20 dwts. of silver, 77*1*/<sub>2</sub> s*1*/<sub>2</sub> d. per oz. standard; bar silver, fine, 49*1*/<sub>2</sub> per oz. standard; firm; bar silver, containing 5 grs. gold, 49*1*/<sub>2</sub> s*1*/<sub>2</sub> d. per oz. standard; cake silver, 52*1*/<sub>2</sub> s*1*/<sub>2</sub> d. per oz.; Mexican Dollars, no price; quicksilver, 6*1*/<sub>2</sub> s*1*/<sub>2</sub> d. to 6*1*/<sub>2</sub> s*1*/<sub>2</sub> d.; discount, 3 per cent.

**GAS SHARES.**—The principal business in these shares, according to this evening's report of Messrs. W. L. WEBB and Co. of the Stock Exchange and Finch-lane, has been—Bath (Limited) Ordinary, 25; British Gas Light (Limited), 41; Buenos Ayres, New (Limited), 12*1*/<sub>2</sub> to 13*1*/<sub>2</sub>; ditto Six per Cent. Debentures, 188*1*/<sub>2</sub> to 189*1*/<sub>2</sub>; Commercial Consolidated, 25*1*/<sub>2</sub>; ditto New Stock, 192 to 194; Continental Union (Limited), Original, 36*1*/<sub>2</sub> to 37*1*/<sub>2</sub>; ditto New, 188*1*/<sub>2</sub> to 189*1*/<sub>2</sub>; Gas Light and Coke A. Ordinary, 22*1*/<sub>2</sub> to 23*1*/<sub>2</sub>; ditto, G, D, and E, Ten per Cent. Pref., 140 to 142; H, Seven per Cent. Maximum, 149 to 151*1*/<sub>2</sub>; ditto, J, Ten per Cent. Preference, 23*1*/<sub>2</sub>; Imperial Continental, 202*1*/<sub>2</sub> to 204; Metropolitan of Melbourne Five per Cent. Debentures, 190*1*/<sub>2</sub> to 192*1*/<sub>2</sub>; Monte Video (Limited), 16 to 16*1*/<sub>2</sub>; Oriental, New, 7*1*/<sub>2</sub> to 8*1*/<sub>2</sub>; ditto, 187*1*/<sub>2</sub> to 189*1*/<sub>2</sub>; Para (Limited), 49*1*/<sub>2</sub> to 50; Rio de Janeiro (Limited), 23*1*/<sub>2</sub> to 24*1*/<sub>2</sub>. Gas stocks very flat, in sympathy with all other stocks. London companies show a fall of about 3 per cent.

**INSURANCE SHARES** have, according to this evening's report of Messrs. W. L. WEBB and Co. of the Stock Exchange and Finch-lane, been—Alliance British and Foreign, 33*1*/<sub>2</sub> to 34*1*/<sub>2</sub>; City of Fire, 147*1*/<sub>2</sub> to 148; Employers' Liability Assurance Corporation (Limited), 12*1*/<sub>2</sub> to 13; Fire Insurance Association (Limited), 3; Guardian Fire and Marine, 13*1*/<sub>2</sub> to 14; Indemnity Marine, 141*1*/<sub>2</sub> to 142*1*/<sub>2</sub>; Law Fire, 15*1*/<sub>2</sub> to 15*1*/<sub>2</sub>; Legal and General Life, 13*1*/<sub>2</sub> to 14; Lion Fire (Limited), 11*1*/<sub>2</sub> to 12; London, 45 to 47; London and Provincial Marine (Limited), 3*1*/<sub>2</sub> to 3*1*/<sub>2</sub>; Marine (Limited), 27 to 27*1*/<sub>2</sub>; Merchants' Marine (Limited), 1*1*/<sub>2</sub> to 1*1*/<sub>2</sub>; North British and Mercantile, 30 to 31; Ocean Marine (Limited), 4*1*/<sub>2</sub> to 5; Royal Marine, 390; Thames and Insurance very flat, especially the old companies.

**RAILWAYS.**—The closing prices of this evening, as quoted by Mr. W. ANNOTT, of Tokenhouse-yard, are given in tabular form in the last page of the Journal.

UNITED MEXICAN MINING COMPANY.

ADVICES FROM MR. HAY, DATED GUANAJUATO, FEB. 23.

El Diamante: On Feb. 14 we had driven in the cross-cut of Saint Paul, 210 metres; total, 5910. We are still advancing through a ramification of quartz, and the only change that has taken place is that less water is coming from the face of the end. In the 1st drift of Saint John west we had driven, on Feb. 14, 210 metres; total, 7285 metres. The threads of quartz have disappeared, and we drive on a wall "relez," which runs along our advance. We had driven, on Feb. 14, in the cross-cut to the "bogo" of Saint John, 2 metres; total, 780 metres. Here, also, we are traversing a ramification of quartz.

San Cayetano de la Ovejera. We had driven, on Feb. 14, in the 11th drift of Saint Andrew east, 305 metres; total, 7955 metres. A new wall has joined the lode to the "bojo," and since it showed itself the appearances have been more promising. In the 13th drift of Saint Andrew west we had driven, on Feb. 14, 240 metres; total, 7080 metres. We had driven, on Feb. 14, in the 15th drift of Saint Andrew west, 235 metres; total, 2255 metres. This working has been abandoned as it continued to be unproductive, and the width of the lode has decreased to 10 centimetres in quartz.

In the 15th drift of Saint Andrew east we had driven on Feb. 14 280 metres; total, 2735 metres. The lode is 60 centimetres wide, and from the middle downwards ore of a fair class is beginning to appear. On Feb. 14 we had driven in the 16th drift of Saint Andrew east 225 metres, making a total of 910 metres. As I have already told you, this end is continued on the east side of winze No. 11 of Saint Andrew. The lode is 1 metre broad, and the ore of a fair class ramified over the whole width. We had sunk in the 1st winze of Saint Andrew on Feb. 14 1 metre; total, 11691 metres. The lode is 1 metre broad, in a ramification of fair ore. In the 2nd winze of Saint Andrew the lode is 60 centimetres wide, without ore, but with good appearances. In the 3th winze of Saint Andrew we had sunk on Feb. 14 235 metres; total, 6770 metres. The vein is 70 centimetres broad, of which 30 centimetres are in fair ore. We have sunk on Feb. 14, in the 7th winze of Saint Andrew, 260 metres; total, 5850 metres.

In the 10th winze of Saint Andrew we had sunk on Feb. 14 245 metres; total, 3145 metres. The lode in the 11th winze of Saint Andrew is 1 metre wide, all in good ore. From this working 3*1*/<sub>2</sub> cargoes were sold last Thursday.—San Antonio de la Ovejera: We had driven on Feb. 14 in the cross-cut of New Year 230 metres; total, 395 metres. Nothing has been discovered as yet in this working.—Adit: We have driven on Feb. 14 in the drift of Saint Martin 370 metres; total, 19850 metres. Two threads of quartz dipping to the north have been traversed, and the lode is reduced to a width of 30 metres.

Returns from the mine of San Cayetano de la Ovejera for the week ending Feb. 21, are \$13,617.48; outlay, \$3273.62.

THE LONDON AND SOUTH AFRICAN EXPLORATION COMPANY (LIMITED).

This company have advice of a remittance amounting to 7400*l.* for the last six weeks, making, with the 6500*l.* previously advised, a total of 13,900*l.* for 12 weeks ending yesterday.

THE MONTANA MINING COMPANY.

The final report of the Committee of Inspection and the statement of the new board of directors, to be presented to the meeting, on Thursday next, will be found in to-day's Supplement to the *Mining Journal*.

**THE NORTH TREKERRY TIN AND COPPER MINES (LIMITED).**—The prospectus of this company, respecting which an important meeting was held at the mines on March 2 (reported in our last issue) will, we understand, be issued on Wednesday next. Applications for shares from private local sources, we are informed, are already being received.

NOTICE TO CONTRIBUTORS AND CORRESPONDENTS.

Regular correspondents and contributors will much assist the Editor by forwarding MSS. as early in the week as possible. This is especially the case with British and Foreign mining reports, directors' reports, and similar important information. General news forwarded on Friday should reach this Office by Noon on that day.

LEAD ORES.				
Date.	Mines.	Tons.	Price per ton.	Purchasers.
Mar. 7	Isle of Man	100	£ 2 0	Panther Lead Co.
9	Central Poxdale	30	11 0	Walker, Parker, & Co.
13	North Hendre	25	7 9	Adam Eytton.
	Rhosmor	40	7 18	Walker, Parker, & Co.
	West Trelogan	15	7 18	Quirk, Barton, and Co.
	Halkin	7	7 12	Walker, Parker, & Co.
	ditto	8	6 6	Quirk, Barton, and Co.
	Penbedn	4	7 10	Adam Eytton.
	South Darren	25	12 6	Walker, Parker, & Co.

BLENDE.				
Date.	Mines.	Tons.	Price per ton.	Purchasers.
Mar. 6	Talacre & Gronant	100	£ 3 5	Villiers Spelter Co.
11	Great Holway	20	3 6	Dillwyn and Co.
	ditto	20	3 6	Vivian and Sons.

BLACK TIN.				
Date.	Mines.	Tons.	Price per ton.	Purchasers.
Mar. 11	Phenix United	11	£43 10	Daubise and Co.
	ditto	11	43 10	Penpoll Co.

**MR. GEORGE BUDGE, STOCK AND SHARE DEALER,** 9, GRACECHURCH STREET, LONDON, E.C. (Established 34 years), has SPECIAL BUSINESS in the following, or part, at net prices—  
30 Bedford United, 23s. 30 Phoenix United, 23s. 50 Callao Bis, 12s. 9d. 100 Chile (New), 6s. 9d. 30 Carn Camborne, 4s. 6 50 Parkgate Iron, £65 3 150 Colombian Hydraulic, 100 Chile (New), 6s. 9d. 50 Colacomb Con., 2s. 6 100 Russell United, 150 Don Pedro, 5s. 100 Chile (New), 6s. 9d. 100 Devon Con., £1 12s. 6 100 Standard, 150 El Callao, £58. 100 Chile (New), 6s. 9d. 100 D. Friendship, 1s. 9d. 40 Standard, 150 El Callao, £58. 100 Chile (New), 6s. 9d. 100 Drakewalls, 4s. 9d. 100 South Frances, £29*1*/<sub>2</sub>. 50 Frontino, 8s. 9d. 100 East Blue Hills, 8s. 9d. 100 Tresavean, 4s. 75 Glenrock, 2s. 100 Goginan, 1s. 6d. 100 Trevaunance, 110 Hoover Hill, 5s. 2d. 100 Great Laxey, £9 13s. 9d. 100 Wh. Silver & Lanteg. 100 Indian Consol., 2s. 9d. 25 Great Holway, 20 Cartago, 15s. paid, 6s. 200 La Plata, 4s. 25 Gunnislake (Oilt.) 7s. 3 200 Cartago, fully paid, 15s. 200 Lisboa-Berlyn, 5s. 6d. 200 Kilkenny, 12s. 6d. 100 Copiapo, £1 12s. 9d. 100 Chile (New), 6s. 9d. 50 Kit Hill Gt. Cons., 9d. 150 California Gold, 5s. 100 Callao Bis, 11s. 6d. 100 Chile (New), 6s. 9d. 200 Killybeg, 12s. 6d. 100 Canada Copper, 3s. 3d. 100 Chile (New), 6s. 9d. 50 Kit Hill Gt. Cons., 9d. 150 California Gold, 5s. 100 Callao Bis, 11s. 6d. 100 Chile (New), 6s. 9d. 100 Leadhills, 23s. 150 Chile (New), 16s. pd., 6s. 9d. 100 Chile (New), 6s. 9d. 100 Mounts Bay, 2s. 6s. 9d. 100 Chile (New), 6s. 9d. 50 New Kitt, 20s. 6d. 100 Chontales, 2s. 9d. 100 Chile (New), 6s. 9d. 50 New Wt. Caradon. 100 Colombian Hyd., 9s. 9d. 100 Chile (New), 6s. 9d. 100 Old Shepherds, 5s. 3d. 200 C. 8th. Austr. Copper, 2s. 3d. 100 Chile (New), 6s. 9d. 100 Phoenix United, 23s. 6 200 Denver Gold, 2s. 3d. 100 Chile (New), 6s. 9d. 100 Polberro, 4s. 3d. 200 Eberhardt, 2s. 9d. 100 Chile (New), 6s. 9d. 100 Prince of Wales, 4s. 200 El Callao, £59. 100 Chile (New), 6s. 9d. 80 Parys Copper, 1s. 200 El Callao, £59. 100 Chile (New), 6s. 9d. 15 Roman Gravel, 6s. 9d. 50 Frontino, 8s. 9d. 100 Chile (New), 6s. 9d. 100 South Caradon, 7s. 6d. 50 Glenrock, 2s. 3d. 100 Chile (New), 6s. 9d. 10 S. Condurro, £24*1*/<sub>2</sub>. 55 Gold Coast, 2s. 3d. 11 Tollima A., £3 11s. 3d. 30 South Darren, 5s. 100 Hoover Hill, 5s. 2d. 100 Chile (New), 6s. 9d. 100 Chile (New), 6s. 9d. 100 Indian Consol., 2s. 9d. 100 Chile (New), 6s. 9d. 100 Tresavean, 4s. 200 Javali, 2s. 6d. 20 T. Mexican, £3 10s. 6 20 Trevaunance, 4s. 100 Kohinoor B., 5s. 6d. 20 Victoria Gold, 10s. 6d. 50 Van, 12s. 6d. 100 Kapanga, 8d. 200 West Callao, 2s. 6d. 50 West Crebor, 1s. 100 La Plata, 4s. 9d. 100 Chile (New), 6s. 9d.

**MR. W. MARLBOROUGH, STOCK AND SHARE DEALER,** 29, BISHOPSGATE STREET, LONDON, E.C. (Established 30 Years) Can SELL the following SHARES—  
150 Almada, 2s. 3d. 40 Holywell District Ld. 20 Oscar Gold, 17s. 6d. 100 Alkankoo, 5s. 9d. 50 Hoover Hill, 5s. 3d. paid 8s. 3d. 25 Bratsberg, 14s. 6d. 60 Indian Con., 2s. 9d. 50 Oregum, 2s. 6d. 100 Balkis, 3s. 3d. 200 Kapanga, 9d. 50 Potosi, 11s. 6d. 75 Colombian Hyd., 9s. 6 75 Kohinoor B., 5s. 6d. 25 Potosi, 11s. 6d. 40 Callao Bis, 10s. 6d. 100 La Trinidad, 4s. 25 Roman Gravel, £3 3 9d. 100 Chile Gold, 6s. 9d. 50 La Plata, 4s. 3d. 100 Richmond, £3 7s. 6d. 120 Chontales, 2s. 6d. 60 Lisboa-Berlyn, 5s. 6d. 100 Lisboa-Berlyn, £4 13s. 9d. 25 Montana, £1 12s. 6d. 100 Tollima A., £3 10s. 20 Ecton, £1 4s. 6d. 50 Mysore Gold, £1 12s. 6 20 Tollima B. 100 Eberhardt, 2s. 6d. 50 Nouveau Monde, 2s. 6 15 U. Mexican, £3 8s. 9d. 25 East Blue Hills, 8s. 9d. 50 Nine Reefs, 4s. 60 Victoria, 9s. 6d. 25 Frontino, 7s. 6d. 40 New Callao, 4s. 9d. 10 West Crebor, 1s. 6d. 100 Glenrock, 2s. 3d. 25 Old Shepherds, 5s. 3d. call paid. 50 Orita, 13s. 9d.

Offers should be made for shares in the foregoing list when no prices are affixed.  
Holywell District Lead Shares should be bought for an important rise.  
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vantages for quick returns no one can deny. Look at the enormous sums of  
money paid in dividends by home and foreign mines. A large number of  
wealthy families owe their present proud positions to adventuring in LEGITI-  
MATE MINES. With a better price for metals many of the smaller priced  
shares would immediately advance some hundreds per cent.  
NEW CHILL also NEW POTOSI SHOULD BE BOUGHT AT ONCE.

There are many mines worth attention, as proceedings of recent shares  
holders' meetings prove beyond doubt. During the last 40 years there has  
so opportunely presented itself as the present for investment in British mines.  
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on this point. Buyers must not further delay orders.  
See Selected List published by S. JAMES, 14, Angel-court, London, E.C.

SPECIAL BUSINESS in the following or part:—		
20 Bedford United, 23s.	10 West Kitty, £29½.	50 Last Chance, 1s.
30 Carn Camborne, 4s. 6d.	20 West Poldice, 4s. 6d.	100 Lisbon-Berlyn, 5s. 6d.
50 Colacomb Con., 2s. 6d.	60 West Phoenix, 2s. 6d.	20 La Trinidad, £5 2s. 6d.
10 Devon Con., £1 12s. 6d.	10 Wheal Bassett, £55½.	10 Mason-Barry, £8 12s. 6d.
100 D. Friendship, 1s. 9d.	50 Wheal Crebor, 17s. 6d.	20 Montana, 31s.
10 Drakewalls, 4s. 9d.		50 Mysore Gold, 31s. 6d.
50 East Blue Hills, 8s. 9d.	30 Asia Minor, 3s. 6d.	100 Nacupai, 2s. 6d.
25 Ecton, 24s.	80 Alkankoo (f.p.), 6s.	15 New Emma, 5s. 6d.
100 East Wheel Rose, 5s.	250 Balkis, 3s. 3d.	200 New Callao, 4s. 9d.
100 Frongoch, 8s.	50 Bratsberg, 14s.	100 Nouveau Monde, 2s. 3d.
100 Goginan, 1s. 6d.	50 Cartago, 15s. paid, 6s.	100 Nundydoo, 7s. 9d.
10 Great Laxey, £9 13s. 9d.	200 Cartago, fully paid, 15s.	50 Nine Reefs, fully paid, 4s. 6d.
25 Gunnislake (Oilt.) 7s. 3d.	7s. 9d.	100 Oscar Gold, 17s. 6d. pd., 8s.
20 Great Holway	100 Canlim Bamoo, 1s. 3d.	50 Oscar Gold, Vendors, fully pd. 10s.
100 Home Mines Test, 13s. 9d.	10 Copiapo, £1 12s. 9d.	50 Organos, 8s. 6d.
20 Kilkenny, 12s. 6d.	50 Canada Copper, 3s. 3d.	25 Orita, 19s.
50 Kit Hill Gt. Cons., 9d.	150 California Gold, 5s.	25 Potosi, New, 12s.
20 Kitty St. Agnes, 17s. 6d.	50 Callao Bis, 11s. 6d.	100 Port Phillip, 2s. 3d.
50 Leadhills, 23s.	150 Chile (New), 16s. pd., 6s. 9d.	25 Puncillio, £24½.
100 Mounts Bay, 2s.	6s. 9d.	50 Ruby, 4s. 6d.
50 New Kitt, 20s. 6d.	100 Chontales, 2s. 9d.	15 Richmond, £3 6s. 3d.
50 New Wt. Caradon.	100 Colombian Hyd., 9s. 9d.	20 Rio Tinto, £11 2s. 6d.
100 Old Shepherds, 5s. 3d.	200 C. 8th. Austr. Copper, 2s. 3d.	20 Schwab's Gul., £4 15s.
20 Phoenix United, 23s. 6d.	200 Denver Gold, 2s. 3d.	120 Spitzkop, 9s.
30 Polberro, 4s. 3d.	100 Eberhardt, 2s. 9d.	100 Tocaqua, 1s. 9d.
50 Prince of Wales, 4s.	20 El Callao, £59.	30 Tocopilla, 2s. 6d.
80 Parys Copper, 1s.	50 Frontino, 10s.	11 Tollima A., £3 11s. 3d.
15 Roman Gravel, 6s. 9d.	50 Glenrock, 2s. 3d.	100 Transvaal Gold, 4s. 6d.
100 South Caradon, 7s. 6d.	55 Gold Coast, 2s. 3d.	50 Tamboracherry, 4s. 6d.
10 S. Condurro, £24½.	100 Hoover Hill, 2s. 3d.	20 U. Mexican, £3 10s. 6d.
10 So. Frances, £9 13s. 9d.	100 Indian Consol., 2s. 9d.	60 Victoria Gold, 10s. 6d.
50 Tresavean, 44s.	20 Javal, 2s. 6d.	200 West Callao, 2s. 6d.
20 Trevaunance, 44s.	100 Kohinoor B, 5s. 6d.	
50 Van, 12s. 6d.	100 Kapanga, 6d.	



## ROYAL MINING ACADEMY AT CLAUSTHAL (GERMANY.)

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**Notices to Correspondents.**

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"SUSUBITA" letter is not inserted, as it is unsuited to these columns. The same result can be obtained by this correspondent by moderating his statements.

**THE MINING JOURNAL,**  
Railway and Commercial Gazette.

LONDON, MARCH 14, 1885.

**EXPLOSIONS, AND SHOT-FIRING IN COAL MINES.**

The explosion at the Usworth Colliery, resulting in a loss of 42 lives, again shows that with all our scientific knowledge, and notwithstanding the best system of ventilation and the adoption of all precautions suggested by the most eminent authorities, fatalities from the ignition of explosive gas in mines are still amongst the dangers that have to be guarded against. But, as has frequently been pointed out in the Journal there is every reason to believe that shot-firing has been one of the principal causes of some of the most terrible explosions recorded. It led to the terrible calamity at the Oaks Colliery, when 360 lives were lost, and only last year, on the occasion of the explosion at the Penycraig Colliery, in South Wales, the jury returned a verdict that the accident, as it was termed, was due to shot-firing. At the Usworth Colliery shot-firing was carried on, and the probability is that it was the cause of the explosion, although, as has too frequently been the case, those who could clear up the matter are numbered amongst the killed. A good many of the Government Inspectors are in favour of doing away with blasting altogether, but in some mines where scarcely any gas is given off such would certainly not be necessary. At the same time, the risk, without any inconvenience, could be brought down to a very low point, so that a loss of 30 or 40 lives at one sweep resulting from shot-firing in a mine would be rendered impossible. How this could be accomplished was pointed out in the circular issued last year by the Home Secretary, and in which he proposes to have a special rule enacted under the Coal Mines Regulation Act that:—"In every colliery where, in pursuance of No. 8 general rule it is obligatory that the persons ordinarily employed in the mine where gunpowder or any other explosives are used, a specified time shall be set apart daily for the purpose of shot-firing, when only such persons as are actually engaged in firing the shots shall be allowed in the collieries." This, no doubt, would cause considerable inconvenience by stopping the ordinary work during the day, but this could be obviated by having the shot-firing carried on at night when the men have left work, and in the manner pointed out by the Hon. A. LITTLETON in his report to the Home Secretary with respect to the explosion at the Penycraig Colliery. He suggested that there should be an amendment of the special rules relating to blasting, under powers conferred on the Secretary of State by section 55 of the Coal Mines Regulation Act; such amendment to provide that (1) the duty of shot-firing shall be confined to one, or at most two, officials of special competency; (2) no blasting shall in any case take place unless every person is out of the pit whose presence is not absolutely necessary for that operation.

This, if carried out at night, would greatly reduce the risks of shot-firing, and would render the loss of more than three or four lives from it impossible. But, before shot-firing is commenced, there should be a thorough examination of the working places, so as to see that they are free from gas or not. Of course, there cannot be an explosion unless there is a mixture of carburetted hydrogen and air in certain proportions, along with a light of some kind, for a red-hot iron or coal plunged into the most explosive mixture will not affect it. The Usworth Colliery, we are told, was, before the explosion, one of the best ventilated in the district, and this is no way inconsistent with what afterwards occurred. Hydrogen itself is the lightest body known, being 14 times lighter than air and 16 times lighter than oxygen, and, before it explodes, it has only to form one-eighth or one-ninth of the entire volume, the remainder being air; and it is a singular fact that, if one-seventh of carbonic acid gas is added to the mixture when it is in the highest degree explosive, it will prevent it from going off, and render it comparatively harmless. But, before an explosion takes place, there are usually some premonitory symptoms to warn the miner of danger, and are shown in the lamp he is supposed to carry, and these should always be attended to, and that immediately; but it is to be feared that many miners are so used to seeing the gas in their working places that they pay but little attention to it; and so let it go on accumulating until it is sufficiently explosive as to destroy them. In every place where the safety-lamp continues to burn the air can be breathed without danger, and when the gas forms one-third of the whole volume the lamp goes out. The escape of the gas itself takes place under considerable pressure, and in consequence of its low specific gravity it is always concentrated in the most elevated portions of a mine—usually on the roof of the working places, and mixes with the air that is sent through. In some

mines the gas is given off more freely from the mineral and other strata than is the case in others, and where it accumulates with the air to an explosive point the firing of a shot is sufficient to deal death and destruction in all directions. But it is to be feared that even the precautions laid down in the Mines Regulation Act of 1872 are anything but strictly carried out, especially as regards shot-firing, otherwise an explosion should be a most remote contingency. In the general rules, which form a part of the Act of Parliament itself, it is provided by the eighth that—"a competent person, who shall be appointed for the purpose, shall immediately before firing the shot examine the place where it is to be used, and the places contiguous thereto, and shall not allow the shot to be fired unless he finds it safe to do so, and a shot shall not be fired except by or under the direction of a competent person who shall be appointed for the purpose." How far this salutary rule has been carried out at Usworth, as well as at other places, it will, of course, be difficult to say, but those in charge of mines that are known to fire off considerable quantities of gas would be acting wisely in seeing that it was carried out to the full extent. Shot-firing in such mines must always be attended with some danger, but the latter should be brought to a minimum by the enforcement with the greatest strictness of all known precautions, whether laid down by Act of Parliament, or otherwise, that are calculated to give increased security and safety to those who are employed underground. It is time that explosions of fire-damp were things of the past, and this will be best effected by doing away with shot-firing in fiery mines, as it is now carried on in many districts.

**CARBONIC ACID GAS IN MINES.**

One of the results of the recent colliery explosions was that several of the explorers were overpowered by the after-damp, which consists principally of carbonic acid gas. There is certainly not so much attention paid to this gas as there is to the explosive carburetted hydrogen, yet it is even more injurious, whilst it is found in more or less quantities in all mines, being most detrimental to the health of those who have to work near it. The gas is produced in all mines by the breathing of the men and horses, the combustion of the lights, the explosion of powder, and comes in considerable quantities from the fissures and cavities of the strata. Although all gases have the property of intermixing with each other, despite the difference in their specific weight, yet carbonic acid gas, owing to its high specific gravity, is found in the greatest quantities on the floors of mines, and a good deal of it is inhaled by the miners, although they are not probably aware of it. When inhaled in any quantity it acts upon the inhaler the same as poison, and when it enters a place where there is atmospheric air, itself forming 8 per cent. of the whole, there is danger of persons in the vicinity of it being suffocated. The symptoms of asphyxia consist of a sudden stoppage of respiration, and of the pulsations of the heart, preceded by pains in the head and eyes, and the sufferer, when not completely overpowered, is only brought back to life slowly and with some difficulty.

The gas, indeed, supports neither life nor combustion in its ordinary condition. For combustion it requires two-and-a-half times its weight of oxygen. Great numbers of our miners suffer from its effects, although, as a rule, they are not aware of the cause of their illness, never supposing it is the result of the imperceptible gas which they are obliged to breathe, but which it is not difficult to remove. Indeed, there is no reason why the working place of a miner should not be made as healthy as any place on the surface. The principal thing required is ventilation, and the laying down of a rule that no man in a mine shall work in a stagnant atmosphere, and that the injurious gases shall have a current of fresh air constantly sent through them so as to render them thoroughly innocuous. This is an easy matter, and the working place of the miner could be made far purer and sweeter than most of the workshops in our towns, if the managers so desired. As it is, the death-rate amongst miners will stand comparison with almost any other class of workmen we have, and this could easily be greatly improved upon. As mines, for various reasons, which will suggest themselves, must of necessity contain a good deal of injurious matter, there is no reason why such should not be constantly removed. Some of our mines, indeed, have with a good deal of truth been likened to the lower parts of a large town inhabited by the very poorest, and before they have had a visit from the medical and practical sanitary authorities preparatory to the removal of all nuisances.

This we know is done at comparatively little cost, and the same could be done with respect to our mines, so as to improve the sanitary state of the underground places. It has also been stated by those well qualified to express an opinion on the subject, that the mines which were worked the most economically with the largest output were the safest and healthiest, for the same intelligence and practical knowledge which was brought to bear in the carrying out of the one affected the other as an inseparable condition. It is only necessary, as we have before stated, that the working places to be made really salubrious and free from carbonic acid gas and other deleterious inhalations that if left unnoticed must undermine the health of the workmen, should be constantly flushed with copious floods of pure air. Where this is done the miners' place of work will not only be uniform in temperature but more pleasant and agreeable than an ordinary place on the surface. The value of the miner's life, there is no doubt, could be greatly increased by efficient sanitary arrangements underground, which would sweep away the deleterious carbonic and other gases, and to effect this the men have the power pretty nearly in their own hands, and were they to use it wisely it would, in our opinion, be far more to their advantage than the maintaining of agitators to foment disputes on the wages question between them and their employers.

**THE UNDEVELOPED COAL FIELDS OF IRELAND.**—There are, according to Sir Robert Kane, seven extensive coal districts in this country. The Leinster coal field extends over the greater part of Kilkenny, Queen's County, and Carlow. This bed, consisting chiefly of slate-coal, lies within an average of 140 yards of the surface, and covers an area of over 5000 Irish acres. The Munster coal field extends over the counties of Cork, Limerick, Kerry, Clare, and Tipperary; and consists mainly of six layers of coal, altogether forming one of the most extensive developments in the United Kingdom. The whole of this vast tract remains comparatively unworked. The Ulster district includes the coal beds of Coalisland and Danganon, covering over 7000 acres; and the Antrim beds, resting on the mica slate. The Connaught district, covering an area of 114,000 Irish acres, extends over parts of the adjoining counties of Roscommon, Sligo, Leitrim, and Cavan. It is in the centre of this district that the Arigna Coal Mines and Ironworks lie.

**QUEENSLAND—BRISBANE.**—The Under-Secretary for Mines has received a telegram from Warden Mowbray, of Herberton, stating that a discovery of silver ore of great richness had been reported in the Albion lease, near Irvine Bank. The assay shows over 20,000 ozs. to the ton.

**MINING TITLES—NEW SOUTH WALES.**

The new mining district of Silverton, New South Wales, where the rich silver mines have been opened on the Barrier Range, near the border of South Australia, is being thrown into some excitement consequent on the uncertainty of titles, and delays in issuing leases. One of the great drawbacks that gold mining generally has had to contend with has been the ever changing and complex character of the laws and titles regulating mining properties. Local mining boards and legislators in Parliaments appear to have been possessed with a mania of framing mining laws with the object of making them as complicated as possible. In the earliest days of the industry the Governments of Victoria and New South Wales imposed the most arbitrary and prohibitive measures, apparently with the object of retarding the industry instead of giving encouragement to it. Legislators who neither knew anything about mining, or took any interest in its development, used to try their pretence hands at a system of patchwork legislation that brought about confusion and uncertainty. To such a degree of indefiniteness of title had the mining laws of Victoria been brought, that at one time nearly all the gold producing claims on the alluvial leads that held their titles under or derived from the frontage system were involved in litigation from the time the companies commenced to get gold until they were nearly worked out. Thanks to the agitation for reform inaugurated in Ballarat in 1860, the mining laws of that colony have become more definite and fairly satisfactory. New South Wales legislators do not yet appear to be alive to the desirability of framing their laws on a simple, definite, and practical plan, and the mining industry becomes hampered and crippled in consequence.

The Lands Department holds away, and issues titles over mineral lands one side, while the Mining Department also holds away, and issues titles over mineral lands on the other side, and the consequences are a glorious uncertainty, which may lead to serious and costly disputes. The *Silver Age* pens a long indictment against the Government for the perplexing uncertainties that are arising under the ill-devised mining laws, and says so numerous are the defects that it is hard to tell where to begin. "Take, for instance, the uncertainty that prevails concerning the validity of mineral conditional purchases. Go to the Attorney-General, to the Minister of Lands, and they will tell you that the mineral conditional purchases is the only absolutely safe title provided by the law. Visit the Department of Mines, and there it will be insinuated with equal candour that as a title mineral conditional purchase is not worth the paper it is written on."

A resident on the Barrier silver field wrote to the Department of Mines asking this simple question—"If I apply for a mineral conditional purchase, and it is granted, will this title be good?" The reply was characteristic. It was simply an intimation that the question was one for a lawyer to decide, and the Minister declined to answer it. The condition of the law is now that it is quite possible for a party of miners to hold a claim under a mineral lease from the Mining Department, and while busy at work developing the mine (300 or 400 miles from Sydney) and having proved it of good value, some scheming loafer in Sydney may go to the Lands Department and acquire a title over the same ground by a "mineral conditional purchase," without even going near the ground. Instances of such cases are absolutely given, and are constantly taking place. Such an outrage on justice, honesty, and common sense is a disgrace to the Government, and will prove a serious drawback to the introduction of capital for the development of mining in New South Wales. Therefore, the sooner they effect a radical reform the better. It is said there are claims on the Barrier silver field that have actually been paid for three times over by their owners—first, as mineral conditional purchases, then as mineral leases, and then again as mineral conditional purchases. And these very owners would willingly pay the fees over again to know that even now they are safe. If the Government do not rectify the abuses of such a reprehensible system of mining law it will bring about deplorable consequences, retard the progress of mining, and destroy its prosperity. There should be but one system of title for mining claims, and only one method of taking possession, and that is by pegging out and properly defining boundaries, and one method of holding possession by fulfilling efficient labour conditions. These are all the conditions necessary for mining claims, and should constitute a perfect title.

**THE SEPARATION OF METALS FROM ARGENTIFEROUS BLENDE AND COMPLEX ORES.**

Some important experiments on a large practical scale have been carried out this week at the works of WILLIAM ELMORE (Limited), Charlotte-street, Blackfriars, S.E. Mr. William Elmore's process for the separation of gold and silver from argentiferous copper has been in operation in Swansea for over three years upon a very extensive practical scale. Its continuous success has caused it to be permanently adopted within the last few months by the largest and most influential firms, including Messrs. Charles Lambert and Co., Messrs. Williams, Foster, and Co., Messrs. H. H. Vivian, and a number of others in this country and abroad. Whilst the process at Swansea, however, has been worked only upon metallic copper for the purpose of separating the gold and silver from it, leaving all three metals pure and distinct from each other, Mr. Elmore's processes for treating the ore direct have only just assumed a thoroughly practical shape after many years constant and tedious experimental work. The first of the series of practical demonstrations carried out in Charlotte-street this week was for the separation of silver and zinc from argentiferous blende, and an analysis of the ore in the ordinary way showed the presence of zinc 45 per cent., and silver 228 ozs. per ton of ore. These metals were separated, and on completion it was found that the residue contained only 1.3 per cent. of zinc, the whole of the remainder being produced in metallic form perfectly pure, and the silver actually recovered was 237 ozs. per ton of ore, whilst 8 of 1 oz. of gold was recovered which the ordinary analysis of the ore before commencement failed to show any sign of. The next demonstration was for the separation of metals from a complex ore, an analysis of which gave the following figures:—Copper, 1.39 per cent.; zinc, 20.5 per cent.; iron, 5.04 per cent.; lead, 17 per cent.; silica, 22 per cent.; sulphur, antimony, &c., not estimated; silver, 15.8 ozs. per ton of ore; gold, 3 dwts. per ton of ore.

After treatment an analysis of the residue gave 1.73 per cent. of zinc, the whole of the remainder of the zinc and the whole of the copper were produced in metallic form pure, the iron and lead having been discarded as valueless:—23.9 ozs. of silver, and 1.2 oz. of gold were produced from the ton of ore, the result being in each case greater than that shown by a previous analysis of the ore.

**THE South Australian Register** (Jan. 31) says:—Owing to the extremely low price of copper the proprietors of the leading mines on Yorke's Peninsula have been compelled to reduce the number of their hands and to decrease wages. At a meeting of the Mounta miners, Capt. Hancock said—"Contracts would be let by tender, and of course there would be no fixed weekly rate of wages. Contractors would have all they could earn. The contracts would be for definite pieces of work, and the full amounts earned would be paid. At the same time the wages for all stem labour and owners' account work must certainly be reduced. In order also to reduce costs the services of some of the men on the mine would have to be dispensed with. Some others who had been working on contract would feel disposed to go. They might some day be glad to come back again, and he would be glad to welcome them. It would all depend on the price of copper." Reductions in the staff have also been made at the Hamley Mine, and the wages have been reduced by 10 per cent.

A report has been received by the Mining Department from the manager of Lonsell's No. 180 Mine, Sandhurst, that during the fortnight 681 loads of quartz were crushed, and yielded 451 ozs. gold.

**CRESWICK.**—The second and richest gutter of the Home Paddock has been struck in the Hepburn Consols, but is not sufficiently opened up to speak of its value.



## THE BOARD OF TRADE RETURNS.

The Board of Trade Returns for the month of February are very discouraging, allowing for the fact that the corresponding month contained 29 days, a difference equal to exactly 4 per cent. The total of British and Irish exports was valued at 16,850,000*l.*, or a decrease of nearly 11 per cent., while the imports were 29,458 000*l.*, or 19 per cent. less. The reshipments, however, of foreign and colonial produce improved 37 per cent. to 6,205,000*l.*, mainly due to an augmentation of 160 per cent. in wool, although some of the leading articles showed a decline, including rice, which fell off 50 per cent. All classes of exports exhibit a reduction, particularly as regards metal and metal manufactures, and yarns and textile fabrics. Cotton price goods, wool and woollen yarns, and carpets were more freely exported, but the value, nevertheless, was smaller. The chief falling off was in the item of refined sugar, 46 per cent. in quantity against 61 per cent. in value. Of imports the reduction is greater in regard to raw materials than in respect of articles of food and drink. Wheat and flour despite an increased import represented a lower value, and some descriptions of provisions showed a similar feature, especially refined sugar.

The following tables give particulars for the month as regards metals, &c., from which it will be gathered that prices have declined and, so far as regards exports, in spite of increased shipments:

IMPORTS.		Quantity.		Value.		Increase or decrease.	
		1884.	1885.	1884.	1885.	Quant.	Value.
		Tons.	Tons.	£	£	Per cent.	Per cent.
Copper ore	11,100	8,764	115,568	64,189	21	45	
Regulus and precipitate	4,745	3,740	154,465	100,467	21	35	
Unwrought & part wrought	3,274	2,308	195,297	118,167	30	39	
Lead, pig and sheet	10,188	11,866	121,511	128,479	16	5	
Tin in blocks, ingots, bars, or slabs	2,047	2,105	169,395	162,829	3	4	
RE-SHIPMENTS.							
Copper	899	344	56,141	17,530	60	69	
Tin	1,174	908	99,435	89,919	22	9	
EXPORTS.		Quantity.		Value.		Increase or decrease.	
		1884.	1885.	1884.	1885.	Quant.	Value.
		Tons.	Tons.	£	£	Per cent.	Per cent.
Copper, unwrought, in ingots, cakes, slabs	26,899	30,745	82,153	80,730	14	0	
Regulus and precipitate	38,945	31,583	144,758	100,170	19	29	
Wrought or part wrought	26,262	30,188	81,114	75,274	6	7	
Mixed or yel. metal							
Total	94,106	92,516	305,022	256,174			
Lead, pig, sheet, piping, & manufactures	2,130	2,858	29,181	34,741	35	19	
Tin, unwrought	369	360	32,618	28,527	3	12	
Coal and coke	1,515,624	1,488,473	739,699	691,857	1	6	
Iron and steel	241,221	209,221	1,892,565	1,480,087	13	21	

\* Denotes increase.

## SCOTCH PIG-IRON WARRANT MARKET.

Mr. W. WILSON (Glasgow, March 12) writes:—The warrant market has lost the improvement reported last week. Sellers have prevailed, and the price is down fully 6*d.* per ton. Trade advices are still discouraging, but not more so than they have been for some time. Shipments for the week do not compare favourably. There is no change in the number of furnaces blowing. 813 tons were put into store here last week, while 30 tons were taken out at Middlesbrough. Business was done during the past week at the following prompt cash prices:—

Thursday, March 5.		Friday, March 6.		Monday, March 9.	
41/5, 41/4, 41/3, 41/2	41/5, 41/4, 41/3, 41/2	41/5, 41/4, 41/3, 41/2	41/5, 41/4, 41/3, 41/2	41/5, 41/4, 41/3, 41/2	41/5, 41/4, 41/3, 41/2
Tuesday, March 10.		Wednesday, March 11.		Thursday, March 12.	
41/5, 41/4, 41/3, 41/2	41/5, 41/4, 41/3, 41/2	41/5, 41/4, 41/3, 41/2	41/5, 41/4, 41/3, 41/2	41/5, 41/4, 41/3, 41/2	41/5, 41/4, 41/3, 41/2
Price of Scotch Warrants, March 9		Furnaces in blast in Scotland do.		Iron in store at this date	
93	93	587,989	594,005	589,203	630,361
Shipments of Scotch pig-iron for week ending March 7		Do. since beginning of year		Price of Middlesbrough No. 3, March 9	
77,813	77,813	34,156	37	40/6	42/9
Furnaces in blast Middlesbrough dist.		Middlesbrough Iron Imported at		Glasgow, week ending	
95	95	8,065	8,635	7,734	4,790
Do. do. since beginning of year		85,591		56,545	48,521
				62,190	

## COLLIERY DISASTERS.

The following is a list of the principal colliery disasters during the last 40 years:—

Colliery.	Date.	Lives lost.
Bigge Pit, Northumberland	April 19, 1841	39
Haswell	Sept. 28, 1844	95
Hetton	Feb. 6, 1855	22
Houghton	Nov. 11, 1850	27
Lund Hill	Feb. 20, 1857	180
Hetton	Jan. 20, 1860	22
Buradon	March 2, 1860	74
Hartley	Jan. 16, 1862	204
Walker	Nov. 22, 1862	16
Conlodge	March 10, 1863	19
Ferndale	Nov. 8, 1867	170
Sheffield	Nov. 15, 1864	258
Oaks	Dec. 12, 1866	350
Talk o' th' Hill, Staffordshire	Dec. 16, 1866	150
Wigan	Sept. 6, 1871	69
Seaton	Oct. 25, 1871	28
Botherham	Jan. 5, 1875	7
Swaith Main	Dec. 7, 1875	160
Wheatley Hill	Sept. 26, 1876	4
Abercarn	Sept. 11, 1878	250
Rica	July 15, 1880	120
Seaham	Sept. 8, 1880	164
Penyraig	Dec. 14, 1880	84
Trimdon Grange	Feb. 17, 1882	73
Trudhoe	April 18, 1882	35
West Stanley	April 19, 1882	19
Usworth, Durham	March 2, 1885	41

**RAILWAY RATES AND CHARGES.**—The Government are arranging for the appointment of a Royal Commission to consist of the Railway Commissioners and experts, representatives of railway companies, chambers of commerce, and trades associations to take evidence and report upon the whole subject of railway rates and charges. Yesterday the railway companies' representatives met to consider the course to be taken on their Rates and Charges Bills. The suggestion of Mr. Chamberlain that they should withdraw the Bills was discussed at length, and it was decided to seek another interview with the President of the Board of Trade. The railway companies' case is that their Bills are based on the recommendations of the Select Committee on Railway Rates, that these have received the approval of the Board of Trade, and that it is unfair to call upon them to withdraw their Bills after they have incurred great expense, merely because a popular agitation has been got up against them.

The London and North-Western Railway Company opened, on Monday, a double-line branch railway, about 8 miles in length, extending from Potters Bar, Wigan, to Pennington, near Kenyon Junction. The line passes through a large coal mining district, and will be used for all mineral traffic for Manchester and the South, thus relieving the Wigan depot, through which it formerly passed.

We are requested to state the Scarborough and Whitby new line of railway was informally opened last Saturday, when a special passenger train was run the whole length. The line links together two fashionable watering-places, and opens out some of the most picturesque and romantic scenery in the North of England. The line will be fully completed for traffic in about three months, and the North-Eastern Railway have agreed to work the railway, in connection with their system, on favourable terms.

## REPORT FROM CORNWALL.

March 12.—The slight reaction which set in just after our last report was penned has had comparatively little influence, in consequence of the general feeling that fluctuations of a temporary character are to be expected just now, especially having regard to the unsettled state of the political horizon. Moreover, it is admitted, beyond the possibility of reasonable controversy, that the effects of foreign competition continue to decrease, while from every part of our mining areas in the county there come reports of steady improvement in the conditions of most of the more important mines.

The dividend in Wheal Agar has been well deserved, and no sympathy need be wasted upon the adventurers who were foolish enough to sell 2*s.* 6*d.* for 2*s.* or 1*s.* 6*d.* The buying and selling of future dividends is pure gambling, and the more unfortunate it proves the better. Some valuable criticisms were offered at the meeting by Mr. W. Husband on the detail of the new compound engines, to which we referred the other day, as regards the necessity of providing hand-starting gear. The point is one that clearly calls for the serious attention of the committee; and, moreover, the adoption of Mr. Husband's suggestion involves neither difficulty nor cost worth a moment's consideration.

The railway boycotting at Camborne progresses with vigour, and, what is more, with financial success. Is it something in these days to be able to discover and prove that railways are not always the indispensable necessities of business existence their managers commonly imagine.

By the death of Capt. Thomas Angove, of Camborne, one of the most familiar faces have been lost to mining circles, and one of the most respected business men of the further West. His connections as a copper buyer were of the most extensive character, both at home and abroad, and he had an amount of knowledge of the copper trade that was probably unexcelled. His removal leaves a gap not easily to be filled.

The North Cornwall Railway is making steady, though not very rapid, progress on its first section between Launceston and Hallwill; and it is intended before long to make a start with the really important Cornwall section, so far as mineral interests are concerned—that from Launceston to Delabole. The opening up of the slate district is thought likely, and with good reason, to yield a large and remunerative traffic. The only new railway works actually in progress in Cornwall now are those of the Bodmin branch. In Devon, however, the Exe Valley line may be regarded as practically complete.

There can be no mistake whatever as to the popular feeling in the county with regard to the proposed mining constituency. Meetings have been held in every centre of importance affected by the change proposed by the Commissioners, and everywhere the feeling evoked has been strongly in favour of the original proposal, in which Redruth was linked with Truro, and Camborne with Helston; instead of Redruth and Camborne and Helston and Truro. The general character of Cornish mining is well shown in the following figures, prepared by Capt. Josiah Thomas:—In the Launceston and Bodmin-Liskeard divisions there are 17 mines at work and 45 abandoned mines; in the St. Austell district, 4 mines at work and 31 idle; in the Truro-Helston division 11 mines at work and 56 idle; in the Camborne-Redruth division 41 at work and 115 idle; and in the St. Ives-Penzance-St. Just district 11 at work and 46 idle.

The third lecture of the Museum Course for working men at the Plymouth Institution was delivered by Mr. H. N. Worth, F.G.S., and drew a large and appreciative audience. Mr. Worth took for his subject "Rocks," with special local references. After giving the scientific definition of the term as applied to all the solid masses of the crust of the earth which had common characteristics, he explained that it had been customary to divide rocks into two great classes—those formed by the operation of fire—the igneous or massive, and those in forming which water played a principal part, the aqueous, or sedimentary, or stratified. The earth was originally a molten mass, so that all rocks must once have been in a state of intense heat. Later on these rocks began to decay; their loosened particles were washed down into the valleys, and thence into lakes and seas, and there deposited in layers, which subsequently hardened and became the ordinary aqueous—bedded or stratified rocks. At the present day wind and rain and heat and frost, were steadily wearing down the land, and the streams were carrying the resulting particles to the ocean, there to be thrown down, and commence a new round of change. But all rocks were not comprised within these two great classes. Some were mainly, if not wholly, organic. Such were the coral reefs, in one of which the Plymouth limestone had its origin. Such was the chalk, made up largely of the minute microscopic coverings of minute animals called foraminifera. Such were the ancient coal seams, and the more recent peat mosses. Other rocks, again, had a chemical origin. Such were the stalactite and stalagmite of their local caves, which were formed by the re-deposition of carbonate of lime dissolved from the limestone rocks by the action of water which contained carbonic acid. And there were also aerial rocks. In dry, hot regions, subject to violent storms, the winds could grind down the hardest rocks by driving across and against them particles of sand previously worn off. Igneous rocks, like those with which they were most familiar in the present day—the lava of volcanoes—might be recognised far back throughout the earth's history. Igneous rocks were most varied in their characteristics, some were crystalline like granites, others seemed to be made up mainly of a paste of even texture, like many Cornish and Devonshire elvans, which were veins of molten matter that had been intruded into fissures of other rocks. Some were glossy like obsidian, some full of little cavities like pumice stone. Others were massive in texture, showing crystalline structure only under the microscope. There was much more variety in form and structure than in original composition in these rocks—the conditions under which they solidified, whether at the surface or under pressure; the rate at which they cooled; and the position of portions relatively to the whole mass; giving rise to the most extreme difference of physical characters. Trap and greenstone were general terms applied to ancient volcanic and intrusive rocks. A third class of igneous rocks was the fragmental. They consisted of volcanic ashes and similar ejected materials, which were often so solidified and altered by cleavage as to be with difficulty distinguished from ordinary slates. The aqueous or sedimentary rocks were divided into three great classes—the arenaceous or sandy, which included all the sandstones and grits; the argillaceous or clayey, which embraced the great body of the slates; and the calcareous, or limy, which comprised all the limestones. But there were fragmental rocks in this division also. Degradations of existing materials did not always go so far as to reduce them to fine grains or mud. Pebbles of various sizes were often cemented together in various ways, and thus formed conglomerates. Where the fragments were angular instead of being rounded the resulting rock was called a breccia. But Nature did not stop with the mere production of these igneous and aqueous rocks. Directly they were made she set to work to alter them, and hence what were known as metamorphic rocks originated. In a broad general sense, indeed, all rocks were altered. Heat and cold, pressure, and chemical and electrical forces were always at work, and the changes produced varied from the mere surface alteration known as "weathering" to a complete recast of structure of relative composition. It was only when such greater changes were produced that the term metamorphic was used. What was called the "cleavage" so well marked in roofing slate was due to enormous pressure causing a rearrangement of the particles. This was a form of metamorphism operating over large areas, often to the obliteration of former structure. So again with the production of such a rock as gneiss. That was composed of the same constituents, practically, as granite—quartz, mica, felspar—but instead of being in irregular crystalline mixture they were disposed separately in leaves or foliations; and this arrangement of the constituent minerals it was that distinguished a schist from a shale or slate. Beside the metamorphism which thus affected large areas—regional metamorphism—there was what was called contact metamorphism, of which the skirts of the granite areas supplied beautiful illustrations. The effect of the intrusion of the heated granite among the Silurian, Devonian, and Carboniferous slates had been greatly to change the character of these adjacent rocks. Intrusive trap rocks also caused

important changes. Some slates were literally baked into what was called porcellanite. In conclusion, the lecturer explained the character and importance of micro-petrography.

The *Western Daily Mercury* says:—We are indebted to the courtesy of Capt. Josiah Thomas for the following information, just now of an important nature, respecting the divisions as recommended by Mr. Commissioner Pelham. In the Launceston and Bodmin-Liskeard division there are 17 mines at work and 45 abandoned mines; in the St. Austell district, 4 mines at work and 31 idle; in the Truro-Helston division 11 mines at work and 56 idle; in the Camborne-Redruth division 41 at work and 115 idle; and in the St. Ives-Penzance-St. Just district 11 at work and 46 idle.

## REPORT FROM DERBYSHIRE AND YORKSHIRE.

March 12.—The question that is now creating more than an ordinary amount of interest throughout the Midland coal field is that relating to the proposed reduction of wages, notice of which has been given by the colliery owners throughout the greater part of the West Riding. The Derbyshire miners evidently consider that the reduction will not be confined to the Yorkshire mining districts, and have consequently taken counsel together, so as to oppose any attempt that may be made to reduce their wages. There was a Conference on Saturday at Chesterfield, when, in addition to the wages question being considered, it was also agreed that the Derbyshire miners should be represented in the new Parliament by one of their own body. The question, no doubt, will ultimately be with respect to his payment, for the lucky individuals who have hitherto been selected for the position consider that the dignity can only be maintained by a salary of 500*l.* a year. Of course this is rather better than delving and striking at the coal face, and if the men are willing to give it, then nobody can well be dissatisfied, although the salary and the duties attached may be the means of sending a good many Richards into the field. Mr. Ben Pickard, who has selected himself as a fit and proper person to represent the Normanton district of the West Riding, was present at the Conference held at Rotherham on Monday on the wages question, and counselled the men to give the strongest possible opposition to the proposed reduction. As the colliery owners are as equally determined to enforce the reduction, a strike appears to be inevitable, and is much to be deplored, for it must result in a great deal of privation and misery. The men from their own resources could stop out but a short time, and if only some 7000 or 8000 go on the Association, all the funds that can be raised, even to mortgaging of the offices at Barnsley, would very soon be exhausted. In addition to this, there is the vast body of non-Unionists, numbering probably four to one more than those connected with the Association, who have nothing to fall back upon, and they cannot expect much from the public, or even those poor shopkeepers they have dealt with, and who will have as much as ever they can do to provide for themselves. The look-out is certainly most disheartening, and it is to be hoped that the leaders of the miners in the West Riding will well consider the situation before they finally give word that the men must strike.

The prospect of a strike on the part of the miners of the West Riding has in no way affected the coal trade of Derbyshire, although a stoppage of a number of collieries would of course make a great difference in it. As it is, a steady business has been done in house coal, but no more than is usual for the time of year. To London a fair tonnage has of late gone from the leading collieries, and during February there was sent from the Clay Cross pits 24,000 tons, from Blackwell and Grassmoor each 14,600 tons, and from Eckington 13,700 tons. Prices have not undergone any change, but if there is no dispute there is every reason to believe that they would go down. Steam coal has continued in moderate request, for as yet the new dock at Boston has not come into use, although under the auspices of the Great Northern Railway Company it should become of considerable value to the colliery owners in both Nottinghamshire and Derbyshire. From it there should be a considerable shipment of steam coal to the Thames as well as to the Continent, and there is no reason why the port should not become a powerful rival to the Humber and the Tyne for the exportation of coal.

Less is now being done in gas coal from the Derbyshire pits, whilst only a moderate demand prevails for small coal for boiler and other purposes. The make of coke in the county is far below what is consumed, and this seems somewhat anomalous, seeing that the seams of coal are well adapted for converting into coke, and, indeed, are identically the same as the coke is made from that which is imported from other districts.

The Iron Trade in the Chesterfield district and along the Erewash Valley continues steady, and the production of pig is still kept up to the average, and there is a fair consumption by the local foundries, which is a great advantage. A little more is being done in gas and water pipes, and an improvement in this important branch of industry is now confidently looked forward to. The forges are also better employed than they were, and it is understood that there are now some heavy orders in hand that will take some time in clearing off. The steel department is also looking fairly well, but little or no change has taken place at the engine or machine works, or at the establishments engaged in the building and repairing of railway wagons.

In Sheffield some improvement has taken place in a few of the heavier branches of trade, and although full employment is not the rule, yet the prospects are now far more encouraging than they have been since the commencement of the year. Some recent Government and other orders have resulted in an increased demand for crucible steel, and makers have laid down plant for the production of the heaviest castings that have yet been turned out. These are expected to be required for marine purposes and ordnance. A large quantity is also being absorbed by makers of wheels, for which large orders have been given out. More is also being done in Bessemer steel, and some of the makers of rails are better employed than they were. A good deal of metal is also being taken for tyres, axles, and some kinds of cutlery and tools. The mills engaged on composition iron and steel plates are now running well, as they have for a long time past, and large orders are still in hand for them that will take months to clear off. In cutlery the trade is still only of a moderate character, and it is only the leading houses that can be said to have their hands fully employed.

The South Yorkshire collieries, are still as a rule, on short time, whilst at most of them there are considerable accumulations of coal, and these are not likely to be reduced during the next two or three weeks, or, at least, before the notices of the miners expire, and at several places they have been given out during the last day or two. The employers appear fully determined to enforce the reduction of wages, of which the men have had notice, and this they will do, despite all consequences. The men are equally determined, and there is no doubt that a strike will take place, so that probably in the early part of April there will be some good men out of work by the action of their leaders for the miners who have sent delegates to the Conference have had but little power in the matter.

Messrs. W. T. SARGANT and SONS, in their report dated 6th inst., write:—Regarding Cornish mines, not only do shareholders receive no dividends, but miners' wages are bordering on starvation rates, say 40*s.* to 50*s.* per month. If the managers of eight or 10 of the largest mines conferred together, they would find this state of affairs need last no longer. They have only to keep back their ores, unless an advance of 10*l.* in the Standards were accorded, and they would be surprised to find how readily it would be paid. There are times when the seller can have his say about the price as well as the buyer, and the present is one of those times.

**HEAVY CALL IN POLROSE MINE.**—A heavy call of 3*l.* per share has been made on the adventurers in Polrose Mine, in Breage. This mine has been in the Vice-Warden's Court for some considerable time, and was formerly in 10,000 shares. This call, of course, has not been made on all the 10,000 shares, as a great many have relinquished their interest, and it therefore comes all the heavier on those who have retained their shares.



## REPORT FROM LANCASHIRE.

March 12.—Business in all branches of the Iron Trade in this district continues dead, and there is very little change to report from week to week in the general condition of the market. A want of confidence in the future still holds buyers back; no one will purchase for stock, and where occasionally consumers are induced to go beyond actual requirements, or orders at all of a speculative character are given out, it is only where long deferred deliveries can be obtained at exceptionally low prices. In pig-iron, business during the week has again been of the very limited proportions that have obtained of late, with quoted rates nominally unchanged; but an undercurrent of weakness in the market that leads to very low prices being taken to secure orders. Good house coal and district brands are quoted at about 40s. 6d. to 41s. 6d., less 2½ delivered equal to Manchester, but to do business of any weight quite 1s. per ton under these figures would have to be taken, and there are sellers of some of the district brands who are prepared to book orders for long-promised delivery at about 39s. 6d. to 40s. per ton, less 2½. In manufactured iron business still comes forward very slowly, works not being kept going more than four days a week on orders coming in from hand to mouth. For good qualities of bars delivered into Manchester 51. 10s. is still quoted by some makers; but for prompt specifications 51. 7s. 6d. is taken in most cases. There is, however, a disinclination to sell long-forward at this figure, and merchants who have been "bearing" heavily are finding it difficult to cover their sales. In the engineering trades a quietening down is generally reported, and any new orders going out are competed for very keenly by firms anxious to keep works going.

In the Coal Trade, with the exception that the recent cold weather has given a little extra push for house fire classes of fuel, there is no improvement. Common round coals continue bad to sell for iron making and steam purposes, and engine fuel, though less plentiful, is only in moderate demand. Prices, though not quotably lower, still show a weakening tendency.

As contracts have to be renewed buyers generally are able to obtain some concession upon the price previously paid, and in common round coals especially there is a great deal of underselling in the markets. Pits are still kept going about four, and in a few cases five days a week, but at many of the collieries stocks are being put down, and a good deal of coal accumulates under load in wagons, which in many instances has to be forced on the market at extremely low figures. At the pit mouth best Wigan Arley averages 8s. 6d. to 9s. second qualities, and ordinary Pemberton Four-feet about 7s. to 7s. 6d.; common round coals, 5s. 3s. to 5s. 9d.; burgy, 4s. 6s. to 5s.; and slack, from 2s. 6d. and 3s. for common up to about 4s. per ton for the best qualities.

The shipping trade has been quiet, and for steam coal delivered at the High Level, Liverpool, or the Garston Docks extremely low prices are in some cases taken to secure orders. Inferior qualities of steam can be got readily at 6s. 9d. per ton, delivered at the above ports, with 7s. 3d. taken for some of the best qualities.

## REPORT FROM NORTH WALES, SALOP, AND CARDIGAN.

March 12.—With one exception there is not a lead mine now in work in the whole of North Cardigan. Good machinery lying idle, the villages deserted of men, and the whole district as still as death, is a true description of the state of things in this once busy region. In South Cardiganshire the state of things is possibly a little better, but there numbers of mines are kept going by owners, hoping against hope until the heart grows weary. The same remarks will apply to the Flintshire lead mining district, and to those of Carnarvonshire and Montgomeryshire. Many of the men have found employment at the great works of the Liverpool Corporation in Montgomeryshire, where some 1000 to 1200 men are employed in quarrying, tunnelling, excavating, and on masonry work. The Liverpool City Council have been complaining of the cost of the works exceeding the estimates. It is now thought that the total cost will be about double the parliamentary estimate. This, however, is largely accounted for by the substitution of a masonry dam for an earthen one, the purchase of the watershed rights, compensation to river proprietors and others, which costs were not originally contemplated. The old opponents of the scheme are, of course, jubilant; but there cannot be any doubt that whatever the cost of the works may be the scheme is by a long way the best that could be adopted, and that it will be appreciated as it deserves by the next generation of the Liverpool people.

Considerable difficulty is experienced at the Birkenhead end of the Mersey Tunnel by the subsidence of the land leading to the breaking of gas and water pipes and the cracking of houses. Time and skill will no doubt rectify all this. In Merionethshire there are complaints as to the slackness of the slate trade, but with the breaking up of the ice in the Baltic there will no doubt come a revival. In Carnarvonshire the trade is in a fairly good state; there is, however, no extension, nor is the least interest felt in slate quarry enterprise. It would, perhaps, be as easy to sell an estate in the moon as a slate quarry property in Wales in the present time.

The collieries all keep in work, but it is probable that with the approach of summer there will be a general reduction of wages. The iron works also are all employed. Other industries connected with the coal measures are in a very active state, particularly those based upon the fire-clays of the coal and the red clays and marls of the permian. Mr. D. C. Davies, of Oswestry, has prepared an elaborate and detailed account of the North Wales and Shrewsbury coal field, illustrated by numerous sections, maps and plans. This will probably be published during the present year by one of the learned societies.

A fatal accident occurred last week at the Hafod Colliery by a fall of roof, and one at the adjoining Vauxhall Colliery on the railway siding. The manufacturing industries connected with coal and iron are in a fairly good condition. Trade has not improved in the Potteries and there is a considerable amount of distress, and the railway receipts suffer accordingly. Considerable excitement exists over the rival schemes for improving the navigation of the Dee, but the balance of public favour seems to be given to the larger scheme connected with the railways and collieries.

## TRADE IN SOUTH WALES.

March 12.—Business in the Mediterranean has stimulated trade here, and shipments are mounting up to the high totals of last year. The amount sent away last week from Cardiff was 154,227 tons foreign, and about 20,000 coastwise, with 6370 tons patent fuel; Newport, 41,442 tons foreign, and 20,699 coastwise; Swansea, 14,267 tons foreign, and about 12,000 coastwise, with 3810 tons patent fuel. The price of steam coal is from 10s. to 11s.; house coal 8s. 9d. to 9s. 3d.; small steam coal, from 4s. 6d. to 5s.; patent fuel, 10s.; pit-wood, 15s. 6d. There is a glut of this latter article at present, and the arrivals are large.

The Iron and Steel Trades show some improvement. The Ebbw Vale Company has shipped 359 tons of steel rails for the Suakim-Berber Railway. The amount sent away last week from Newport was 1736 tons, and Cardiff 2370 tons. The arrivals of iron were large, amounting to 14,078 tons at Cardiff from Bilbao, and 578 from other places; Newport received 7488 tons from Bilbao, and 8100 from other places.

The shipments of tin-plates at Swansea continue to increase, and it seems as if the headquarters of this trade will in future be concentrated at that port. Swansea is nearer New York than Liverpool, and as all the plates are made in its vicinity, it seems rather remarkable that the business should have remained so long at the great Mersey port. There is now some talk of creating a Tin-plate Exchange at Swansea, an event which, if carried out, will tend to cheapen prices, and so produce good to the buyers as well as to the manufacturer.

The tin-plate business last week showed signs of reaction, but as orders remain plentiful, makers are still busy. Good coke made stand at about 14s., and even as much as 14s. 6d. in special brands.

## TRADE OF THE TYNE AND WEAR.

March 12.—There is not much change in the position of the Coal Trade in this district; a considerable amount of dullness is felt in some branches. The demand for best steam coals continues fair; but second-class coals of this kind are not in great demand at present. The gas coal trade is also getting rather quiet as the season advances. There is a little improved demand for house coals, but not sufficient to keep the works fully going. There is a good demand for coal consumed by smiths and forges. The demand for manufacturing coal continues moderate. The coal shipments for February, according to Brown's Export List, show a considerable falling off as compared with the same month last year. The coke shipments, however, are very satisfactory, the shipments from the North-Eastern ports having been 22,740 tons, against 18,333 tons in February, 1884. A revival of the inland iron and steel trade will, it is expected, place this important branch of the trade in a satisfactory condition.

The shipments of coal and coke at Tyne Dock last week were 919,909 tons, which is scarcely up to an average.

The demand for fire-bricks and fire-clay goods generally continues good, and shipments, foreign and coastwise, are on a good scale. The chemical trade continues steady without much change in prices, soda crystals are 21. 10s. 6d.; bleaching powder, 61. 7s. 6d. The salt industry on the Tees is likely to be considerably extended.

Messrs. Bolckow and Vaughan expect to commence working the salt shortly by the bore-hole system.

In connection with the Durham Coal Trade, we are sorry to report that one of the pits of the Earl of Durham is to be closed—the Lady Ann Pit, near Fence Houses; this pit gave employment to 264 men and boys, and steam coal was worked. All the men and boys have received notice to leave, as the works are to be closed for the present, the reason given being that the demand for this coal is not good at present. It is also understood that a shaft is to be sunk at these works to the Hutton seam, for the purpose of winning a large quantity of coal which still remains in that seam.

THE USWORTH COLLIERY EXPLOSION.—Great exertions have been made during the past few days to clear away the falls in the main roads, and to explore the in-by workings, where the bulk of the men are entombed, but hitherto with only partial success. The falls, which have occurred at hitches and faults in the strata, are extremely heavy, and much time has been consumed in getting the roads only partially opened. On Friday it was discovered that there was a fire in the floor which leads from the underground hauling-engine to the upcast shaft, but this fire was found to be of little consequence, and it was soon got under. On Saturday a large exploring party was formed for the purpose of attempting an exploration into the district where it is supposed the explosion occurred, but after proceeding some distance they found that smoke was issuing from these workings. Penetrating further into the workings it was found that the volume of smoke was increasing, and when this was reported to the managers it was resolved that the district should be sealed off by putting up stoppings, which was done with all dispatch, and of course a pipe was inserted into one of the stoppings for the purpose of testing the state of the internal air at intervals. On Sunday the stopping and pipe were examined by Mr. Patterson and others, and they found that there was little, if any, indication of heat or smoke in the vicinity.

On Monday there was a consultation of viewers held at the colliery office, which was attended by a large number of eminent men in the trade, including Mr. G. B. Forster, Mr. G. C. Greenwell, Mr. Palmer, Mr. Berkeley, &c. Previous to the meeting of this committee an examination of the workings was made by Mr. G. B. Forster and others, and they reported that the indications were "favourable." After two hours' consultation several members of the committee descended and again examined the mine, and afterwards another consultation was held at the office, when it was determined to keep the inner district sealed up until Friday next. It is feared that there is a fire in the internal part of the workings, although there is as yet no absolute certainty on the point.

It is scarcely necessary to remark that the Usworth Colliery explosion has been one of a most violent character. So far it appears to be the general opinion that the seat of the explosion—that is the point where it originated—was in the Maudlin seam, about 2 miles from the shafts. There are three seams extensively worked here—the Maudlin seam being the upper seam, next below the Low Main seam and the bottom seam being the famous Hutton seam. There is no doubt that all the seams generate gas, but the Hutton and Maudlin seams are generally considered fiery seams in this district, and the greatest explosions have occurred in those seams both in early and modern times. It certainly appears to be extraordinary presuming that the explosion occurred at the point indicated, that it should have traversed such a great distance, and only expended its prodigious force at the shafts, clearing out the heavy timber on the main roads, and killing all the horses and ponies, 63 in number, with the exception of one small pony.

As a rule, when an explosion occurs in a district of a large mine the force does not extend much beyond the limits of the district.

As in those deep seams the main roads are generally very dry, the presence of dust may possibly have not only intensified the fire, but contributed to its extension outwards, and its great violence near the shafts.

The Iron Trade has improved to some extent; there has been a better feeling during the past week, and there has been more enquiry for forward delivery. The accumulation of stock on a heavy scale seems to have been checked, as an addition of only 6300 tons appeared for February. There are better shipments, and the export trade is now expected to increase. The improved rates for Scotch iron has also caused a more cheerful feeling. The future of the trade, however, is still very uncertain. The manufactured branches are still very quiet. An increased quantity is, however, required for foundry purposes, and a larger consumption of hematite iron will be taken up by the steel trade. The shipments for last week were 14,057 tons. There is a good demand for Scotland, but only a limited demand for Germany. The steel trade is much firmer, and the demand for plates for shipbuilding is improving rapidly, and prices have been advanced. Some months must elapse before the arrangements being made at Jarrow and Elswick, &c., will enable the local makers to meet the demand. Shipbuilding certainly promises much better, but there is yet much to be done to bring about anything like a general resumption of operations in the shipyards. The demand in the manufacturing branches of the iron trade is very dull, and prices remain at a very low figure. Makers still quote 34s. 6d. for No. 3 pig-iron. There is no change in the value of any kind of iron, but an advance in the price of steel for shipbuilding purposes.

The depression which has existed in the iron trade during the past year is clearly shown by the fact that Messrs. Bolckow and Vaughan have only paid 2½ per cent. for the year, little more than one-fourth the dividends formerly paid by this great company. There is some improvement in the shipping trade, freights having advanced to some extent. Contracts have been made at 5s. per ton from the Tyne to Cronstadt, which is an advance of 6d. per ton on the rates of last year. There is more employment for ships and better rates on the whole, and this will no doubt stimulate the shipbuilding trade. Orders have been given for three iron vessels within the past few days, and there are more enquiries. Steel is now preferred for shipbuilding and most other purposes, but the demand for it has now raised the price up to 71. per ton, while iron ship-plates can be bought for less than 51. per ton. Hence the recent orders for iron ships.

WRECK OF A DYNAMITE-LADEN VESSEL.—A schooner loaded with dynamite has for some time been stranded off Larne, the inhabitants of which are much alarmed. Negotiations have been opened with Messrs. Noble, of Glasgow, to either remove or destroy the vessel. The local magistrates have taken the matter up, owing to the public apprehension in the neighbourhood.

THE CANADIAN CORRESPONDENT OF THE LIVERPOOL JOURNAL OF COMMERCE says—Mr. Chaffey has sent out a party of experienced miners to test his seam at Big Hill. If the result proves satisfactory it is his intention to have coal at Medicine Hat in three weeks.

## REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

March 12.—The position of the South Staffordshire Coal Trade does not look better than at the date of last report. Alike house and ironworks coal is in excessive supply, and the situation of masters in the matter of profits is consequently vexatious. Some of them this week declare that unless the fuel is almost given away there is no doing anything like a full week's work. The demand for furnace coal, in particular, is rather declining than augmenting since sales of native pig-iron are rather limited. Open market quotations are, however, unchanged upon last week. The pig makers report only a languid call, and at some furnaces stocks are increasing in a troublesome manner. Consumers will not enlarge former contracts except when they can buy upon their own terms, and these mean very little respect for the pockets of makers. All-mine pigs are quoted 57s. 6d. to 62s. 6d., but lower rates are accepted. Part-mine pigs are 42s. to 45s., and cinder pigs at an average of 36s. 3d. to 37s. 6d. The production of Derbyshire and Northampton pigs is beginning to be reduced, but no effect has yet been produced upon prices. Operations at the mills and forges are still irregular. Specifications under former contracts are difficult to get in. Sheet and bar makers are doing most, and it is expected that next week the Capperfield Ironworks, formerly the property of the Chillington Company, but which have now passed into the hands of Messrs. W. Molineaux and Co., of the Bull's Bridge Ironworks, Moxley, will be reopened. Common bars are selling at 61. to 57. 7s. 6d., while best qualities are still 71. 10s.

The suggested conference between representative colliery operatives and coalowners to arrange a new sliding-scale in the South Staffordshire coal trade is not being at present successfully arranged. The men refuse to accept the stipulation of the masters that none of the operative members of the late Wages Board shall be elected.

The North Staffordshire colliery owners are not receiving many good contracts. In fact, so slow is the demand that many of the pits are only on a little more half time. The call for manufacturing purposes is dull, while the business doing in domestic fuel is moderate. Ironstone and pig-iron are difficult to dispose of. In the finished departments there is a slight improvement perceptible. There are some good export enquiries for bars, hoops, and plates, and during the week further specifications have been given out. Yet the mills are only working about four turns a week. Crown bars stand at 57. 10s. to 61., but for good lots and immediate delivery a fraction lower is accepted. Ordinary plates are 71. to 75. 5s. delivered at Liverpool.

COMPARATIVE SAFETY IN MINES.—The results, recently announced, of a curious competition amongst mines, deserve more than usual attention, because they show that even in fiery mines, with care, loss of life may be reduced to a minimum, if, indeed, not entirely prevented. Perhaps some of our readers will remember that some 10 years ago, in Belgium, a member of the Association of Engineers, from the school at Liège, founded a prize, to be awarded to the managers of the fiery colliery in which the least number of deaths from explosion should take place in 10 years. To this end he gave the sum of 5000 frs., which, with the accumulated interest, now amounts to about 8500 frs. To this sum the Belgian Government added 5000 frs. Last year a jury was appointed to decide the question, and they have, after thorough investigation, presented their report. The prize has now been presented, the fortunate colliery being that of the Nord de Charleroi, No. 3 pit. The second prize was gained by the Ougrée, and the third by the Grisouil collieries. In the awarding of this prize the difficulties to be encountered in prosecuting the operations of mining were to be taken into account. The conditions of the competition excluded all pits in which fewer than 250 men were employed in underground work; 90 collieries entered the list as competitors, but only one-half of this number kept up the minimum number of underground hands. The deaths from explosions during the decennial period were two for No. 1, four for No. 2, and nine for No. 3. These numbers gave per 1000 employed 0.59, 1.03, and 1.33 respectively. If we omit one of the competing collieries—that of Aigrappe—in which the number of deaths was, chiefly in consequence of a very disastrous explosion, 269, the mean number of deaths from fire-damp explosions in 43 pits during the period of 10 years was 23.33, which gives a proportion of 2.48 per 1,000.—Iron.

NEW SOUTH WALES.—A report from Mr. W. B. Henderson, Superintendent of Drills, to the Minister of Mines, states that water has been tapped in two distinct strata in a bore some 16 miles west of Wilcannia, on the road to Silverton. The water, first tapped at 112 ft., was suitable for stock, but the second spring at a depth of 120 ft. was much fresher than the first, and can be made available for domestic purposes. The discovery is very important, as in the long stretch of country between Wilcannia and the Barrier ranges there has been great difficulty in obtaining water.

NORTHERN TERRITORY.—The exports of gold from the Northern Territory during the past year was 21,675 ozs., valued 77,9351.; pearl shell, 40½ tons, value 58981. Tin, 18½ tons, value 7981. Statistics show the Territory to be progressing in every way. The approximate estimate of stock depasturing in the district is 100,000 head of cattle, 5000 horses, and 30,000 sheep.

NEW KITTY MINE.—The report of the proceedings at the meeting of the New Kitty Mine Company, which was held on Tuesday, will be read with interest not only by the shareholders who were unable to be present, but by all who are concerned in the future of Cornish mining. The great success which has been achieved by the adjoining mine of West Kitty has attracted attention in an especial degree to the St. Agnes district, and mining men are watching closely what is being done not only at the two mines above mentioned, but also at Polberro, Trevaunance, and two or three other mines in the same group, all of which are managed in the same office, and on the "No Credit" system. The accounts presented to the meeting disclosed a satisfactory position of affairs financially. There are no arrears of calls, and no liabilities due and unpaid, except a trifling balance of 311. 4s. 2d. due to the bankers. The shareholders, therefore, know precisely how they stand as regards money matters, and the small call of 2s. per share, which was made at the meeting, is estimated to be ample to carry on operations for the next three months. It may be mentioned that this call was proposed by the largest shareholder in the mine, who is also in the fortunate position of being a large shareholder in West Kitty; with the exception, perhaps, of Capt. Vivian, there is no one who knows the geological characteristics and mineral-yielding capacity of the district more thoroughly than this gentleman; and, as he has shown, in the most convincing way possible his entire confidence in the future of New Kitty; this will be an encouragement if any were needed, to his co-shareholders, to spare no effort to push on operations with all possible speed. As regards the mine itself, the works are now approaching a point where rich courses of ore may fairly be expected to be reached. Since the last meeting, which was held in November, the operations have mainly been confined to Thomas's shaft, and to the driving there of the 20 and 40 fm. levels east. The 40 fm. level has been driven about 12 fms. east of the shaft, and the lode there is similar to the lode in West Kitty just before the great course of tin was cut. The 20 fm. level has been driven about 24 fms. east of Thomas's shaft, and the lode at the end is of the same promising character. At the adit level, which has been brought up to Thomas's shaft on the course of the lode a distance of 140 fms., it has been found that very large excavations have been made, both in the back and bottom of the level, and it was under these large excavations that the rich course of tin was found in West Kitty; and there is not much reason to doubt the correctness of the local rumour that large returns of tin and copper were formerly made from these old workings, seeing that so much ground has been taken away. A great improvement may reasonably be soon looked for at this point, because in the last 5 fms. driving on the 20 fm. level (which will soon be back under the old workings), the ground has considerably improved. The shareholders are to be congratulated on the excellent prospects of New Kitty.



## Registration of New Companies.

The following joint-stock companies have been duly registered:—

**THE LIVERPOOL ROPEWORK COMPANY (Limited).**—Capital 30,000*l.*, in shares of 10*l.* The objects for which this company is established are:—To purchase the machinery, tools, plant, and effects belonging to W. C. Jarvis, James Gales, and James McWean, in Rathbone-road and Pique-lane, Wavertree, near Liverpool, used as a rope manufactory, by F. Rawlinson and J. T. Radcliffe, trading as Francis Rawlinson and Company, and to purchase the buildings, workshops, &c., erected by the above company, and to carry on the business of ropemaker in all its branches, or any business analogous thereto. The subscribers (who take one share each) are—Walter Gryson, shipowner, 20, Water-street, Liverpool; J. Bell, Eskdale, Cressington Park, Liverpool; George Hepburn, 11, Red Cross-street, Liverpool; Archibald Bathgate, 15, Fenwick-street, Liverpool; Isaac Jarvis, 11, Derwent-road, Stonecroft; J. Begg, consulting engineer, 72, Victoria-road; W. J. Priest, 34, Bank-road, Bootle.

**GAVIN SMITH AND CO. (Limited).**—Capital 60,000*l.*, in shares of 10*l.* To carry on the business of repairers, shipowners, ship store merchants, engineers, and boiler-makers, dry dock, and slipway owners, wharfingers, and brick and cement makers in all their branches. To purchase wrecked and damaged vessels and repair and sell them, or any business of a similar character. The subscribers (who take one share each) are—John Dent, jun., shipowner, Newcastle-on-Tyne; W. M. Young, Newcastle-on-Tyne; C. R. Irving, Newcastle-on-Tyne; H. Pratt Barlow, 60, Haymarket, London; Adam Craik, 13, Alice-street, South Shields; G. T. Dexter, timber merchant, Jarrow-on-Tyne; G. Smith, marine engineer, South Shields.

**THE PREMIER PUBLISHING COMPANY (Limited).**—Capital 20,000*l.*, in shares of 1*l.* To carry into effect an agreement dated Jan. 18, 1885, between J. H. Evans of the one part, and George Symes of the other part, to carry on the trade or business of printers, publishers, booksellers, stationers, bookbinders, and general agents, &c., in all its branches. The subscribers (who take one share each) are—J. H. Evans, 2, Bywater-street, Chelsea; W. Shilton, 43, Halford-street, Islington; John Cheetham, 6, Catherine-street, Strand; E. Gregory, Bywater-street, Chelsea; Thomas Cowell, 9, Radnor-street; H. J. Melville, 4, St. Peter's-street; George Symes, 28, Poplar Grove, West Kensington.

**THE DEVON AND CORNWALL TRADERS' ASSOCIATION (Limited).**—Capital 20,000*l.*, in shares of 1*l.* To carry on and conduct the ordinary business of a trade protection society, and to acquire, purchase, carry on, and conduct the business of any company, association, society, or of any person or persons of same or similar nature, and to sell the undertaking, assets, or property, or any portion of the same, to any other company, &c. The subscribers (who take one share each) are—Jackson W. Smart, 53, Parkhurst-road; Henry S. Wood, 26, Kennington Park-road; R. E. Tervier, 47, Moorgate-street, E.C.; T. Fitzmaurice, 89, London Wall; Emma L. Rooke, Fairhold-road, Stoke Newington; H. C. Rooke, 4, Granville-terrace, Walthamstow; Harriet R. Rooke, 4, Granville-road, Walthamstow.

**THE CELIA CONSOLIDATED MINES (Limited).**—Capital 80,000*l.*, in shares of 1*l.* To purchase, lease, or otherwise acquire land, whether or not for mining purposes, gold mines, mining and water rights, or minerals and timber in Nevada, California, United States of America, or elsewhere, and the rights, privileges, powers, and appurtenances to the said property. The subscribers (who take one share each) are—James Parr, Cecil Park, Crouch End; Thomas Parr, 14, Lombard-street, E.C.; J. S. Porter, 26, Midway Chambers, E.C.; Richard Morgan, 3, Liverpool-street; Sidney Wilkinson, 10, St. Thomas's-road, Finsbury Park; James F. Burgess, 14, Almeric-clapham, Clapham Junction; J. Pitt, engineer, 33, Belgrave-street, East.

**THE DYNAS-PONAS BRICK AND TILE COMPANY (Limited).**—Capital 30,000*l.*, in shares of 20*l.* To acquire land by purchase, lease, or otherwise, for the purpose of manufacturing and selling bricks, tiles, earthen pipes, &c., and to do all other things appertaining to the business of brick manufacturers. The subscribers (who take one share each) are—J. K. Collett, provision merchant, Sunnyside, Penarth; H. Millward, 33, Windsor-road, Penarth; J. Phillips, ironmonger, Glebe-street, Penarth; John Isaac, 1, Pembroke-terrace, Cardiff; J. Price Jones, Mayfield, Penarth; J. Sully Stone, 24, Richmond-road, Cardiff; D. Griffiths Price, Penarth Villa, Penarth.

**THE FINANCIAL NEWS (Limited).**—Capital 50,000*l.*, in shares of 1*l.* To acquire, print, publish, and circulate, or otherwise deal with the *Financial News*, and start, print, publish, circulate, and otherwise deal with any financial newspaper or newspapers, or other publications. The subscribers (who take one share each) are—G. F. Michon, 123, Gray's Inn-road; W. Powler, 21, Gotha-street, South Hackney; C. Edward Stiffe, 154, Alexander-road, South Hampstead; Herbert Mott, accountant, 215, Cornwall-road, Notting Hill; F. Power, secretary, 100, Huddleston-road, N.; C. X. Hobbs, 2, Moreton-street, W.; Alfred Platt, 27, Manor-road Clapham.

**RAILWAY ELECTRIC SWITCH AND SIGNAL COMPANY (Limited).**—Capital 50,000*l.*, in shares of 10*l.* To carry on the business of contractors, electricians, and engineers, and to manufacture, purchase, supply, let, license, hire, sell, deal in, and dispose of machinery, apparatus, appliances, materials, utensils, and things required for and used in connection with electricity, magnetism, or other effects as applied to railway signals, points, and interlocking apparatus, or any other machinery, &c., required, or used in connection with the working or management of railways. The subscribers (who take one share each) are—David M. Yeomans, engineer, Kingman, Ohio, U.S.A.; Messrs. Augustus Timmins, 2, Great George-street; Jonathan Nield, 1, Ashburn-place, South Kensington; Stanley C. C. Corrie, electrician, 75, Jernyn-street; Frederick Newton, 6, King William-street; John B. Ball, 1, Gresham Buildings; Edwin Fox, wire manufacturer, Millwall; Henry T. West, secretary, 5, Great Winchester-street.

**THE "ATLANTIS" STEAMSHIP COMPANY.**—Capital 33,000*l.*, in 10*l.* shares. To carry on business as a shipowner, including any business or assets, or transactions incidental thereto, or which shipping companies are wont to carry on or do in connection with the business of owning and working ships, and primarily to purchase and work the steamship "Atlantis." The subscribers (who take one share each) are—Thomas Scrutton, 9, Gracechurch-street; Samuel Linder, 9, Gracechurch-street; James Linder, 9, Gracechurch-street; Frederick Stowell, 9, Lime-street; Thomas P. Curtis, 18, Billiter-street; Henry Langridge, 16, Great St. Helens; Thomas Mason, 8, Leadenhall-street.

## THE CRISIS IN THE YORKSHIRE COAL TRADE.

An important conference of Yorkshire miners was held at Rotherham on Monday last, for the purpose of discussing the proposal of the owners to reduce wages 10 per cent. Mr. EDWARD COWEY, President of the Yorkshire Miners' Association, occupied the chair, and there were present 136 delegates, representing 100 collieries and 41,391 men.

The CHAIRMAN, in the course of his remarks, said that the masters had raised a fund of 500,000*l.*, and now they had done so they seemed unwilling to try and arrange matters amicably with the men, but would rather waste it in insurances and the like, while the pits were closed and the men on strike, instead of spending it on the men, by allowing the present wages to continue. Times might be bad and trade depressed, but the owners would gain nothing by a reduction; they intended to take off about 3*d.* per ton from the payment for production, and then allow consumers about 8*d.* per ton. The real fact was that the reduction was intended for the advantage of such large consumers as manufacturers, steam shipping, gas companies, and the like, who were already paying such large dividends.

Mr. B. PICKARD (secretary of the association) said that the proposed taking off of the advance of 10 per cent. obtained in 1882 was unnecessary and uncalled for, and would act unfairly both to employers and employed. The doctrine of humanity preached by the owners when they said they would lock-out the men and allow them to earn nothing if they refused to accept the reduction was a strange one indeed.

Mr. FIRTH said he believed that the proposed reduction proceeded not from colliery-owners pure and simple, but from ironmasters who owned collieries. It was the action, too, of a lot of people interested in railways, gas companies and the like. The 10 per cent. advance allowed in 1882 did a deal of good, and the public reaped the advantage, but really the systematic pinching and screwing which had been going on had resulted in the losing of most of this advance, so that really the present proposal was a further actual reduction, and not a taking-off of an advance.

Mr. PARROTT said that if the masters hesitated the whole district would be plunged into a tremendous strike, the results of which would be felt not only by the owners and men, but by the public generally.

A DELEGATE remarked that every logical argument was on the side of the men, who now worked not like human beings, but like beasts for a bare existence.

It was unanimously resolved by those present on behalf of the 40,000 miners represented—"That in the opinion of this Conference of Yorkshire miners, the intimation of the reduction of their wages to the amount of 10 per cent. be resisted by every legal means, believing the same to be uncalled for, and that each colliery of workmen inform their employers of the same whenever they request to have an interview with them."

Mr. PICKARD stated that the owners intending giving the men notice that there would be no work for them after March 31, unless they accepted the reduction. If the men had given a similar notice they would be told it was illegal. The notices given by the masters were illegal, and he believed that if the men continued working they could through the County Court get every penny which was deducted from their wages. He urged upon the delegates present to urge upon the men they represented the necessity of joining the Union—if they had not already done so—and then to act for defence, not defiance. If ever the time came when the Union felt strong to act on the aggressive they might then consider how they could best do it.

The Conference was then adjourned until Monday, March 23.

## REDUCTION OF THE OUTPUT.

The Barnsley correspondent of the *Leeds Mercury* writes:—Owing to the threatened strike of miners in Yorkshire a good deal of interest is taken in the tonnage of both house and steam coal sent to the London markets and the Humber ports. The interest is being increased by the fact that some of the firms working the Thick or steam coal seams, who have monthly contracts with their men, have not yet given them notice as was expected, not wishing to do so until they see what turn events will take. It is further stated that competition of late has been so great and prices were so low that some of the coalowners are at a loss to see how a reduction of about 3*d.* per ton on wages all round will enable them to improve their position. The return shows some striking changes. Owing to the stoppage of Denaby Main the tonnage sent last month was reduced one-half, and Manvers Main now heads the list. The total tonnage sent by the whole of Yorkshire collieries last month was 84,416 tons, against 90,536 tons in 1884, or a decline of 6120 tons. On the other hand, there has only been a falling off to the extent of 1312 tons in the quantity sent during the last two months, the tonnage this year being 185,104 tons. Amongst the changes which have taken place, it may be stated that Corton Wood only sent 880 tons last month, against 2328 tons last year. Wombwell Main supplied 736 against 1064 tons in January last. Carlton Main sent only 960 tons, against 3064 tons last year. Amongst the West Riding collieries which send largely, may be mentioned Allerton Main, which supplied 5856 tons, against 7184 tons last year; whilst Frystone Colliery, the nearest to the port, supplied 4432 tons, against 1112 tons in February, 1884. Last month, 29 of the leading South Yorkshire collieries sent 48,784 tons, against 53,816 tons in the month of February, 1884; whilst 14 of the largest West Yorkshire collieries sent 22,736 tons, against 21,200 tons in 1884.

## MEETING OF MINERS AT NORMANTON.

On Tuesday night, at the Union Hotel, Normanton Common, a meeting of the miners employed at Messrs. Pope and Pearson's two pits was held, Mr. M. Adams presiding. The meeting was addressed by Mr. P. Pickard and Mr. E. Cowey, officials of the Yorkshire Miners' Association, who were well received.

Mr. COWEY, speaking on the impending struggle in the coal trade, said they did not as yet know what they were fighting, as Messrs. Pope and Pearson's had not intimated whether or not they were about to give notice to the men for a 10 per cent. reduction. But Messrs. Briggs and Co. had already stated that they should demand a reduction of 10 per cent. on the 18th of this month. At the Sharlston Colliery it was a fact that the owners did not intend to ask for a reduction. He believed that not 30 per cent. of the owners in this Riding were prepared to take and maintain a request for a reduction. If the owners had been in a position to carry out the demand they would have met the Miners' Association, and not worked in such an "underneath" manner as they had done. The men were determined to suffer no reduction. (Cheers.) The owners, if they got the 3*d.* per ton from the men, would not benefit in the least, for they would undersell each other, and give railway and gas companies the advantages.

Mr. B. PICKARD said not only Sharlston, but Snydale, Pontefract, &c., would not give the men notice. He did not think that Newland Pits would allow Sharlston to get all the London trade, and such would be the case of other neighbouring collieries. They were told that certain owners were afraid of the Miners' Association getting too powerful, and were trying to harass it. Messrs. Briggs and Co.'s men had already said they would not submit to any reduction. If trouble came, Lancashire and Derbyshire were ready to support the miners.

The Conference resolution was confirmed.

On Wednesday the miners employed at the large Wombwell Colliery received a month's notice to leave, consequent upon the anticipated reduction, although the Miners' Association state with confidence that several of the largest Yorkshire firms will not give notice. The men are holding meetings all over the district, and seem determined to resist the reduction, and abide by the decision of the Rotherham Conference.

The miners employed at the Thorncroft Collieries have held a meeting at which they complained of the fact that a motion to bring about an amicable arrangement by means of interviews with the owners, which their delegate proposed, was ridiculed. It was said that anything ought to be done or submitted to to prevent a lock-out, and that they would be justified in taking the matter into their own hands now that their delegates had been laughed at. It was resolved unanimously that the meeting regretted the action taken by the Rotherham Conference, and thought interviews with the owners ought to be sought, and compromise effected, although they should resist the full 10 per cent. reduction.

A statement as to the Yorkshire output shows that the total tonnage in February was 84,416 tons, against 90,536 in 1884, showing a decrease of 6120 tons. On the other hand 29 of the leading South Yorkshire collieries sent in January 48,784 tons, against 53,816 tons last year, and 14 of the West Yorkshire collieries sent 22,735 tons, against 21,200 last year. It is stated that if troubles come Lancashire and Derbyshire miners will support the men through a lock-out or strike.

**THE STRIKE AT DENABY MAIN COLLIERY.**—On Wednesday a deputation of Denaby Main miners waited upon Mr. Buckingham Pope, of Hull, the managing director, with a view to the settlement of the dispute. In the course of the interview Mr. Pope said it was not a question of competing with persons who owned collieries in the neighbourhood, but was a question of competing with persons all over the universe. He instanced a case in which the company had a contract for a railway company in Sweden, and said if the price had not been lowered and re-lowered the contract would have gone into South Wales. He had observed for some time that prices had been going downwards, and he knew this must inevitably come to pass, in spite of all that could be done by the united exertions of masters and men. Trade would enforce its own rules.—The interview lasted several hours, but when the deputation withdrew the

question in dispute stood as before, and Mr. Pope expressed his intention to have all the men turned out of the houses which belonged to the company. Regret is expressed at the non-success of the meeting, and serious consequences are feared.

## CONSULAR REPORTS.

The report of the United States Consul at Rouen gives some interesting details as to the coal mines of Lens and Douvrin in the Department of Pas-de-Calais, and the neighbouring cantons of Cambrin and Vimy. From it we gather that the Lens and Douvrin properties together measure  $\frac{7}{8}$  miles in length, with an average width of about 4 miles, and are composed of certain grants limited to 15,000 acres, made from time to time within the years 1850 to 1875. These mines afford means of support to about 15,000 people. The Consul also tells us that these mines may be taken as typical of the coal mines of the department of the North, and he, therefore, gives some interesting details, some of them the result of his own personal observation. The chemical analysis shows a percentage varying from eight to 40 of volatile matters, the southern beds being richer in this respect than the northern, and "Smith's" coal being found in the middle of the section. In 1877 40 veins were exposed, varying from 1*½* ft. to 8*½* ft. in thickness. There is no inconsiderable difficulty in getting this coal, owing to the covering of wet, chalky earth, varying in depth from 375 ft. to 500 ft., which has to be pierced and afterwards removed by means of most powerful machinery, sometimes of as much as 1000-horse power at a shaft, as much as 66,000 cubic yards being raised in 24 hours. By a carefully prepared table it is shown that from 231 tons, raised in 1853, in the Lens Mines, as against 61,668 tons raised from other mines of the basin of the Pas Calais, and yielding a percentage of 0.37 per ton of each, by an uninterrupted progress the amount of coal raised in 1883 increased to 1,29,695 tons in the Lens Mines, as against 4,978,164 tons in the other mines, and yielding 31.50 per cent. per ton of each. In the half-year to July 31, 1884, there had been raised 1,227,645 tons in the Lens mines with a yield of the same percentage per ton. By the same table it appears that while from 1875 till 1884 the number of tons raised in the Lens mines increased from 691,562 to 1,227,645, and in the other mines from 2,265,657 in 1875 to 4,978,164 in 1883; the percentage per ton of each remained at 31.50—which may be taken as indicating that as high a percentage as is possible is now obtained. Looking, therefore, at the nature of the coal itself and the increase shown in the output, these mines may be said to be valuable in themselves, and made the most of by those to whom they belong.

The exports from Mexico of precious metals during the three-quarters of the year 1883-1884, as compared with those during the three-quarters of the year 1882-1883, show a decided increase. Coined silver, for instance, was exported to the value of \$20,355,491.72, as against \$19,360,154.04; bar silver to the value of \$3,849,989.71, as against \$3,299,736.10; silver ore to the value of \$653,034.35, as against \$362,970.04. Of the other metals a very large difference is shown in the exports of lead. Of that there was sold to the value of \$120,314.53, as against \$33,887.83. In copper, on the other hand there was a falling off from \$55,676 to \$37,467; of sulphuric ore \$65,644.86 worth was exported; of black precipitate silver, \$9828; of silver dust, \$4715; silver in slags, \$2500; worked silver, \$1000. Of coined gold considerably less was exported the respective amounts being \$118,698, and \$272,719.50. In bar gold there was an increase from \$412,099.03 to \$532,671.25. The exportation of foreign coined silver was largely above that in the preceding year, in which \$98,354.28 represented the value of this exported, whereas in 1883-1884 it is \$156,882.60. Foreign coined gold, however, was less largely exported by a great deal, only \$17,360.00 being sent out of the country, as against \$116,380.09 the year before. Looking to the fact that Mexico is one of the great sources from which precious metals flow over the face of the earth, this increase of exportation of the raw material, taken in conjunction with the decrease in foreign-coined gold export, is a healthy sign, showing, as it does, that the demand for Mexico's goods in the shape of precious metals has been greater, and that Mexico has been able to supply that demand.

The troublous times which Peru has been lately experiencing have had a sad effect on her trade. Owing to the danger attending interior travel, and the disorderly condition of the mining country, very little silver reaches Lima, where there is a magnificent mint, the monthly receipts being on an average only 30 to 35 bars, value 3000 soles, or thereabouts, in spite of an export duty of 3 per cent. on ore and bar silver and of 5 per cent. on coined money of the Republic. Owing to the presence of the belligerents, and the poverty of those interested in the mines, trade in that respect is stagnant; and yet if this war were at an end this Republic ought to be able to attain a position of great financial prosperity by developing her almost boundless mineral wealth. The idea, we believe, is seriously entertained so soon as peace is arranged of forming a syndicate to proceed with the drainage of the great silver mines of Cerro de Pasco, which have been choked up with water since 1824.

That such an undertaking should ever be contemplated shows that there is a strong belief in the future of Peru, and it is to be hoped that before very long the peace of that part of the world will be restored, so that the unfortunate Republic may be in a position to avail herself of the numerous channels through which, by developing her underground treasures, she can reap the profit of that which now lies ungoten and unwon.

Considering what we have said above as to the richness of the coal mines in the Pas-de-Calais, it is surprising to gather, as we do from the report by Consul Williams, at Rouen, who says nothing as to the export of coal, that none of the output comes through that port. That place also we are told has no exports of the crude metals, and there is little buying and selling, except pig-iron and tin; the copper, lead, tin, and zinc imported being reshipped for the neighbouring foundries to Paris or the interior. From England and Spain the imports of lead in pigs increased from 800 tons in 1876 to 4568 tons in 1883, the imports of copper in ingots and sheets were in 1883 5539 tons, as against 2347 tons in 1876, and 2111 tons were exported in 1883. From Belgium in 1876, 980 tons; in 1883, 1350 tons were imported into Rouen, which exported in 1883 1174 tons. From England and Holland the imports of tin in ingots and pigs were 148 tons, and from Sweden and England of iron and steel 1534 tons were imported, as against 770 tons in 1877. From Scotland 1187 tons of pig-iron were imported. From the above figures it may be gathered that the increase of imports has been very considerable, in the case of lead for instance, five times the amount imported in 1876 coming into the port in 1883.

In Germany it appears that owing to the large exportation to America, and an enlarged consumption in Germany, the production of raw iron was in 1883 the highest ever known, amounting to 3,420,000 tons, but the value of the amount produced fell from 192,600,000 marks in 1882 to 180,900,000 marks in 1883, or about 5 marks less per ton on the average. This falling off is supposed to be partly due to the efforts of Russia and France by prohibitive duties to keep out foreign ironwork, which necessitates branch manufactories in those countries, to which the raw iron is sent to be made into merchandise. England, who had been keeping up her production on a flat market, by trying to throw her accumulated supplies on the German market, helped to cause this diminution in value. Over competition caused the copper works to be in an unfavourable position, and lead and zinc were in a materially worse plight. The silver produced in 1883 rose to 233,884 kilogrammes, but if the Latin Monetary Union be dissolved or the United States suspend their coinage of silver, the production of silver, in the opinion of Commercial Agent Smith, of Mayence, would become at once an impossibility in Germany. Altogether, the outlook for mining interests in that country seems to be anything but a pleasant one to contemplate. It is to be hoped that when we have authoritative reports as to the trade done in 1884, these gloomy forebodings of Mr. Smith, of Mayence, may prove to have been unfulfilled.



**PURSUANT** to an order of the High Court of Justice made in an action of HARFORD LURY, on behalf of himself and all others the holders of debentures of the PENNANT BARYTES AND LEAD COMPANY (LIMITED) against the PENNANT BARYTES AND LEAD COMPANY (LIMITED) and others, whereby it was ordered that an account be taken of what is due and payable for principal and interest to the plaintiff and the other holders of debentures issued by the said Pennant Barytes and Lead Company (Limited) under a certain deed of the 15th May, 1883. All persons claiming to be holders of mortgage debentures of the said Pennant Barytes and Lead Company (Limited) are required on or before the 14th April, 1885, to send their names and addresses, the amount, and distinctive numbers of their debentures and other particulars of their claims, and the names and addresses of their solicitors (if any) to Messrs. ROBINS, CAMERON, and KEMM, of Gresham House, Old Broad-street, in the City of London, the plaintiffs' solicitors, and if so required by notice in writing from the said Messrs. Robins, Cameron, and Kemm, are by themselves or their solicitors to COME IN and PROVE their said CLAIMS at the Chambers of the Vice-Chancellor BACON, at the Royal Courts of Justice, Strand, London, at such time as shall be specified in such notice, or in default thereof they will be excluded from the benefit of any distribution of the proceeds of the property charged by the said debentures before such claims are proved.

Monday, the 20th day of April, 1885, at 12 o'clock at noon is appointed for hearing and adjudicating upon the claims.

E. LIONEL CLARKE, Chief Clerk.

Dated this 7th day of March, 1885.

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In the Court of the Vice-Warden of the Stannaries.  
Stannaries of Cornwall.

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IN re MENERN AND COMBELLACK MINE.

**TO BE SOLD**, pursuant to an Order or Decree made in above Cause, dated the 15th day of August last, and under the direction of the Registrar of the said Court, by PUBLIC AUCTION, at the above-named Mine, in the parish of Wendron, within the said Stannaries, on MONDAY, the 23rd day of March instant, commencing at Eleven o'clock in the forenoon, in lots, and subject to such conditions as shall be then and there stated, the undermentioned

MINING MACHINERY, MATERIALS, and EFFECTS, viz.:

16 head stamps with axle, 140 fathoms of flat rods, horse whim and fittings complete, 60 fathoms steel wire rope, 140 fathoms of launders, 3 round bobbles, with 6 feet water wheel, 2 smaller water wheels, 1 drop screw about 9 feet long, and 1 1/2 screw and loop, crab winch with 40 fathoms of chain, 44 sheaves, 2 whim kiddles, 12 stamps, slips, screwing stock, anvil, vice, double iron block, iron block, iron tube, and stock, wood sheds, blasting powder, safety fuse, miners' tools, steel, new and old timber.

Also the following pitwork now at surface:—3 10 inch pumps, 9 feet long, 2 4 inch ditto, 6 feet ditto, 1 9 inch door piece, 1 9 inch H piece, 1 window, 19 inch plunger pole, case, stuffing box, and glands, 16 feet 9 inch wood rod, 10 feet 6 inch ditto, 20 feet 6 inch ditto, pair of strapping plates, 11 feet 3 inch iron rod, staples and glands, flange and sundry bolts, 2 pairs of loops and brasses, balance bob, door rings and pump rings, 23 feet iron stave ladders. Sundry account house furniture, and various other materials in general use in mines.

The above may be inspected on application to the Bailiff in charge at the Mine, and further particulars obtained at the Registrar's Office.

HODGE, ROCKIN, and MARRACK, Truro, Plaintiff's Solicitors.

Dated Registrar's Office, Truro, this 5th day of March, 1885.

In the Court of the Vice-Warden of the Stannaries.  
Stannaries of Cornwall.

**IN the MATTER of the COMPANIES ACT, 1862, and of the WHEEL JEWELL MINING COMPANY.**

ALL CREDITORS or CLAIMANTS of the above-named company who have not received notice from the Registrar of the said Court that their claims have been already admitted, are hereby required to COME IN and PROVE their several DEBTS or CLAIMS at the Registrar's Office, Truro, on THURSDAY, the 19th day of March instant, at 11 o'clock in the forenoon, or in default thereof they will be excluded from the benefit of any distribution made before such proof. And for the purpose of such proof they are to attend in person, or by their Solicitors or competent agents at the time and place above-mentioned.

FREDERICK MARSHALL, Registrar.

Dated Registrar's Office, Truro, the 9th day of March, 1885.

In the High Court of Justice in Ireland.

CHANCERY DIVISION—MASTER OF THE ROLLS.  
BOROUGH AND COUNTY OF SLIGO.

WILLIAM POLLEXFEN, Plaintiff, ALEXANDER IRWIN MIDDLETON, Defendant.

**RENTAL AND PARTICULARS AND CONDITIONS of SALE of VALUABLE PROPERTIES**, held in fee-simple, farm, and for terms of years in and about the towns of Sligo, Collooney, and Ballisodare, which will be SOLD BY PUBLIC AUCTION by

MR. ROBERT MAVEETY, Auctioneer, at his Auction Rooms in the town of Sligo, on FRIDAY, the 17th day of April, 1885, at the hour of twelve o'clock noon, pursuant to the orders for sale in this Cause made on the 22nd day of June, 1883, and the 22nd day of April, 1884, comprising amongst other property:—

LOT 9.—Lands of Abbeytown, containing 349A. 3n. 26 1/2 p. statute measure or thereabouts, held in fee-simple, situated in the Barony of Leney, and county of Sligo, held under Landed Estates Court Conveyance dated 30th day of April, 1872.

The yearly rental of this property at present is £327 14s. 1d., and the purchaser will be entitled to the mining plant and valuable ore now lying on the surface.

DESCRIPTIVE PARTICULARS.

LOT 9.—This lot comprises very valuable fee-simple property, situate close to the town of Ballisodare, a station on the Midland Great Western Railway, in said county of Sligo. It is let to solvent tenants at very moderate rents. A portion of the property is let to a temporary tenant for grazing purposes only, and will be given up at the end of the season. This portion comprises most valuable lead and zinc mines, which were partially opened and worked by the late firm of Middleton and Pollexfen. This lot also comprises the mining plant used by the late firm in working the said mines, as well as a large quantity of valuable silver, zinc, and lead ore raised from the mines and now lying on the surface. This portion of the property is situate on the Ballisodare River, which is sufficiently close to the mine to enable workers to wheel ore, &c., on board lighters with a barrow if required. This property has been very much improved. Besides £500 borrowed from Board of Works, some hundreds more were expended in draining, levelling, and making new fences, and otherwise generally improving the lands.

For rentals, conditions of sale, and further particulars, apply to CHARLES SEDLEY, Esq., Solicitor for the defendant, 66, Lower Gardiner street, and Sligo; Messrs. HAMILTON and CRAIG, Solicitors for the plaintiff, having carriage of the sale, 30, South Frederick-street, Dublin; or to Mr. ROBERT MAVEETY, the auctioneer, Sligo.

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Near LLANTRISANT.

**MESSRS. STEPHENSON and ALEXANDER** are instructed by the Official Liquidator TO SELL, BY AUCTION, on TUESDAY and WEDNESDAY, the 17th and 18th of March next, at 11:30 A.M., the WHOLE of the

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And other articles, consisting of—

9 stationary engines and portable steam engines.  
12 egg-end Cornish and Lancashire boilers.  
80 fathoms pump trees, about 100 tons of sliding rails, about 60 tons of tram rails, about 70 tons of permanent rails, 4 massive pump lifts, about 100 tons, saw bench, 2 permanent water weighing machines, tram dolly, mortar mill, donkey pumps, treble purchase crab winch, 5 Eclipse and Darlington rock drills, and a general assortment of various other plant and materials.

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BY

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Situate in the parishes of Maentwrog and Trawsfynydd, in the county of Merioneth, three miles from the village of Ffestiniog and twelve from Portmadoc, together with portion of the valuable

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UPSET PRICE £11,500.

**THERE WILL BE EXPOSED TO SALE, BY PUBLIC AUCTION**, within the Faculty of Procurators' Hall, St. George's-place, Glasgow, on WEDNESDAY, the 25th day of March, 1885, at Two o'clock afternoon, in virtue of the powers of sale contained in bonds and dispositions in security, the LANDS of PLANN, including the farm of Plann, tenanted by Mr. John Kirkland, the COLLIERY, FIRE-CLAY, and BRICK WORKS carried on by Messrs. John McKnight and Son, the houses occupied by their workmen, the house and offices occupied by Mr. McKnight, and the valuable minerals in the lands.

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Glasgow, 5th February, 1885.

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